

Piston and/or plunger operated volumetric apparatus —

Part 3: Methods of test

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Laboratory Apparatus Standards Policy Committee (LBC/-) to Technical Committee LBC/36, upon which the following bodies were represented:

- Association for Science Education
- British Glass Manufacturers' Confederation
- BLWA (Association of the Laboratory Supply Industry)
- CLEAPSS School Science Service
- Department of Trade and Industry (Laboratory of the Government Chemist)
- Institute of Medical Laboratory Sciences

The following bodies were also represented in the drafting of the standard through a subcommittee:

- Department of Trade and Industry (National Weights and Measures Laboratory)
- Royal Society of Chemistry

This British Standard, having been prepared under the direction of the Laboratory Apparatus Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 July 1993

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The following BSI references relate to the work on this standard:
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Foreword

This Part of BS 7653 has been prepared under the direction of the Laboratory Apparatus Standards Policy Committee, in anticipation of the publication by the International Organization for Standardization (ISO) of ISO 8655-3, which will give methods of testing piston and/or plunger operated volumetric apparatus (POVA).

The draft International Standard ISO/DIS 8655-3 was prepared by Subcommittee 1 of ISO/TC 48, Laboratory glassware and related products, with the active participation and approval of the UK. The equivalent draft British Standard was issued for public comment in June 1990. Subsequent to the approval of ISO/DIS 8655-3 for publication, no action was taken by ISO/TC 48/SC 1. To avoid further delay, the Laboratory Apparatus Standards Policy Committee approved publication of the equivalent British Standard, in advance of ISO 8655-3, based on the draft International Standard, with the exception that clause 6 “Confidence level(s)” of ISO/DIS 8655-3 has been omitted, because of inconsistency and lack of clarity in the content; the associated figures are also omitted.

It is the purpose of this Part of BS 7653 to provide uniform reference procedures which can be used by anyone to assess the errors of piston and/or plunger operated volumetric apparatus (POVA). The methods are recommended for use in the establishing of performance claims and in quality control procedures during manufacture, as well as in control checks throughout the working life of an instrument.

BS 6018:1981 and BS 7532:1991 describe methods of test for accuracy and precision of mechanical handpipettes (pipetters) of capacity 10 µl and over. The methods given therein are specific to mechanical handpipettes of that capacity, but conform to the principles laid down in this Part of BS 7653.

This Part of BS 7653 is one of four Parts published together, the other three Parts being as follows:

- *Part 1: Glossary of terms;*
- *Part 2: Methods of operation;*
- *Part 4: Specification for conditions of test, safety and supply.*

This Part of BS 7653 describes methods of test only, and should not be used or quoted as a specification defining limits of performance. References to this standard should indicate that the methods of test used are in accordance with BS 7653-3:1993.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 6, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.