

# **SLOVENSKI STANDARD**

## **SIST EN ISO 8655-2:2002**

**01-november-2002**

---

### **Volumetrične naprave, delujoče na bat - 2. del: Batne pipete (ISO 8655-2:2002)**

Piston-operated volumetric apparatus - Part 2: Piston pipettes (ISO 8655-2:2002)

Volumenmessgeräte mit Hubkolben - Teil 2: Kolbenhubpipetten (ISO 8655-2:2002)

Appareils volumétriques a piston - Partie 2: Pipettes a piston (ISO 8655-2:2002)

**Ta slovenski standard je istoveten z: EN ISO 8655-2:2002**

[SIST EN ISO 8655-2:2002](https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

#### **ICS:**

17.060	Merjenje prostornine, mase, gostote, viskoznosti	Measurement of volume, mass, density, viscosity
71.040.20	Laboratorijska posoda in aparati	Laboratory ware and related apparatus

**SIST EN ISO 8655-2:2002**

**en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 8655-2:2002

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 8655-2**

September 2002

ICS 17.060

English version

**Piston-operated volumetric apparatus - Part 2: Piston pipettes  
(ISO 8655-2:2002)**

Appareils volumétriques à piston - Partie 2: Pipettes à  
piston (ISO 8655-2:2002)

Volumenmessgeräte mit Hubkolben - Teil 2:  
Kolbenhubpipetten (ISO 8655-2:2002)

This European Standard was approved by CEN on 13 July 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**iTeh STANDARD PREVIEW**  
<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

**EN ISO 8655-2:2002 (E)****Foreword**

This document (ISO 8655-2:2002) has been prepared by Technical Committee ISO/TC 48 "Laboratory glassware and related apparatus" in collaboration with Technical Committee CEN/TC 332 "Laboratory equipment", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2003, and conflicting national standards shall be withdrawn at the latest by March 2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

**Endorsement notice**

The text of the International Standard ISO 8655-2:2002 has been approved by CEN as a European Standard without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

[SIST EN ISO 8655-2:2002](https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002)  
<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

**Annex ZA** (normative)**Normative references to international publications with their relevant European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	Year	Title	EN	Year
EN ISO 3696	1995	Water for analytical laboratory use - Specification and test methods	ISO 3696	1987

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 8655-2:2002](https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 8655-2:2002

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

# INTERNATIONAL STANDARD

**ISO  
8655-2**

First edition  
2002-09-15

---

---

## **Piston-operated volumetric apparatus — Part 2: Piston pipettes**

*Appareils volumétriques à piston —*

*Partie 2: Pipettes à piston*

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

SIST EN ISO 8655-2:2002

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>



Reference number  
ISO 8655-2:2002(E)

© ISO 2002

## ISO 8655-2:2002(E)

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 8655-2:2002](https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

© ISO 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.ch](mailto:copyright@iso.ch)  
Web [www.iso.ch](http://www.iso.ch)

Printed in Switzerland



## Contents

	Page
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Principle of operation .....	2
5 Design .....	2
6 Type, designation .....	5
7 Metrological performance requirements .....	5
8 Marking .....	8

## Annexes

A Information to be provided by the supplier for the user of piston pipettes and tips .....	9
B Possible sources of error for piston pipettes with air interface .....	10
Bibliography.....	11

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN ISO 8655-2:2002  
<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>

## ISO 8655-2:2002(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 8655 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8655-2 was prepared by Technical Committee ISO/TC 48, *Laboratory glassware and related apparatus*, Subcommittee SC 1, *Volumetric instruments*.

ISO 8655 consists of the following parts, under the general title *Piston-operated volumetric apparatus*:

- *Part 1: Terminology, general requirements and user recommendations*
- *Part 2: Piston pipettes*
- *Part 3: Piston burettes*
- *Part 4: Dilutors*
- *Part 5: Dispensers*
- *Part 6: Gravimetric methods for the determination of measurement error*

The following part is under preparation:

- *Part 7: Non-gravimetric methods for the determination of measurement error*

Annex A forms a normative part of this part of ISO 8655. Annex B is for information only.

## Introduction

ISO 8655 addresses the needs of:

- suppliers, as a basis for quality control including, where appropriate, the issuance of supplier's declarations;
- test houses and other bodies, as a basis for independent certification;
- users of the equipment, to enable routine checking of accuracy.

The tests specified should be carried out by trained personnel.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 8655-2:2002](https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002)

<https://standards.iteh.ai/catalog/standards/sist/ac5f53b4-b555-4891-b590-53cb8bf6c04c/sist-en-iso-8655-2-2002>