APPENDIX AA

ADOPTION PROPOSAL FORM

**CPR183/F12**

**KENYA BUREAU OF STANDARDS**

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| **Document Type:** | **Adoption proposal** | |
| **Dates:** | Circulation date | Closing date |
| 2024-07-30 | 2024-08-30 |
| **TC Secretary** | **This form shall be filled, signed and returned to Kenya Bureau of Standards for the attention of Catherine Nduva (nduvac@kebs.org)** | |

The Kenya Bureau of Standards intends to adopt the International Standards as detailed here below.

1. **ISO/TR 20461:2023**

**TITLE: —** Determination of uncertainty for volume measurements of a piston-operated volumetric apparatus using a gravimetric method

**SCOPE:** This document gives detailed information regarding the evaluation of uncertainty for the gravimetric reference measurement procedure specified in [ISO 8655-6](https://www.iso.org/obp/ui/en/#iso:std:iso:8655:-6:en)[[1](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:20461:ed-2:v1:en:ref:4)] and the gravimetric procedure specified in [ISO 8655-7:2022](https://www.iso.org/obp/ui/en/#iso:std:iso:8655:-7:ed-2:en), Annex A, according to the [ISO/IEC Guide 98-3](https://www.iso.org/obp/ui/en/#iso:std:iso-iec:guide:98:-3:en)

This document also includes the determination of other uncertainty components related to the liquid delivery process of a piston-operated volumetric apparatus (POVA), e.g. repeatability and handling. Furthermore, it provides examples for the calculation and application of the uncertainty of the mean delivered volume and the uncertainty in use of a single delivered volume for dispensers. It is applicable to dispensers with nominal volumes from 1 μl up to 200 ml, designed to deliver their volume (Ex).

<https://www.iso.org/obp/ui/en/#iso:std:iso:tr:20461:ed-2:v1:en>

1. **ISO/TR 16153:2023**

**TITLE:** Determination of uncertainty for volume measurements of a piston-operated volumetric apparatus using a photometric method

**SCOPE:** This document gives detailed information regarding the evaluation of uncertainty for the photometric reference measurement procedure specified in [ISO 8655-8](https://www.iso.org/obp/ui/en/#iso:std:iso:8655:-8:en) and the photometric procedure specified in [ISO 8655-7:2022, Annex B](https://www.iso.org/obp/ui/en/#iso:std:iso:8655:-7:ed-2:en:clause:B) according to [ISO/IEC Guide 98-3](https://www.iso.org/obp/ui/en/#iso:std:iso-iec:guide:98:-3:en).

This document also describes the determination of other uncertainty components related to the liquid delivery process of a piston-operated volumetric apparatus (POVA), e.g. repeatability and handling. Furthermore, it provides examples for the calculation and application of the uncertainty of the mean delivered volume and the uncertainty in use of a single delivered volume.

<https://www.iso.org/obp/ui/en/#iso:std:iso:tr:16153:ed-2:v1:en>

1. **ISO 8655-10:2024**

**TITLE:** Piston-operated volumetric apparatus — Part 10: User guidance, and requirements for competence, training, and POVA suitability

**SCOPE:** This document provides user guidance regarding the selection of piston-operated volumetric apparatus (POVA) (including exchangeable parts) and best practices for their use.

This document also specifies requirements for user training and competence. Further, this document introduces performance tolerances and testing of POVA to ensure fitness for their intended use

<https://www.iso.org/obp/ui/en/#iso:std:iso:8655:-10:ed-1:v1:en>

1. **ISO 4787:2021**

**TITLE:** Laboratory glass and plastic ware — Volumetric instruments — Methods for testing of capacity and for use

**SCOPE:** This document provides methods for the testing, calibration and use of volumetric instruments made from glass and plastic in order to obtain the best accuracy in use.

This document is applicable to volumetric instruments with nominal capacities in the range of 100 µl to 10 000 ml. These include single-volume pipettes (see [ISO 648](https://www.iso.org/obp/ui/en/#iso:std:iso:648:en)), graduated pipettes (see [ISO 835](https://www.iso.org/obp/ui/en/#iso:std:iso:835:en)), burettes (see [ISO 385](https://www.iso.org/obp/ui/en/#iso:std:iso:385:en)), volumetric flasks (see [ISO 1042](https://www.iso.org/obp/ui/en/#iso:std:iso:1042:en) and ISO 5215), and graduated measuring cylinders (see [ISO 4788](https://www.iso.org/obp/ui/en/#iso:std:iso:4788:en) and [ISO 6706](https://www.iso.org/obp/ui/en/#iso:std:iso:6706:en)).

This document does not deal specifically with pycnometers as specified in [ISO 3507](https://www.iso.org/obp/ui/en/#iso:std:iso:3507:en). However, the procedures specified for the determination of volume of glassware can, for the most part, also be followed for the determination of a pycnometer volume. For some types of pycnometers, special handling can be necessary.

<https://www.iso.org/obp/ui/en/#iso:std:iso:4787:ed-3:v1:en>

1. **ISO 5215:2022**

**TITLE** Laboratory plastic ware — Volumetric flasks

**SCOPE** This document sets out requirements for the construction of general laboratory volumetric flasks made of plastic material.

<https://www.iso.org/obp/ui/en/#iso:std:iso:5215:ed-1:v1:en>

1. **ISO 23873-1:2022**

**TITLE** Automated liquid handling systems Part 1: Vocabulary and general requirements

**SCOPE:** This document defines terms relating to automated liquid handling systems (ALHS). This document also specifies general requirements for the use of ALHS.

It describes types of ALHS and specific use requirements, settings, and adjustments for each ALHS type. It also specifies environmental requirements for the use of ALHS.

This document is applicable to all ALHS with complete, installed liquid handling devices, including tips and other essential parts needed for delivering a specified volume, which perform liquid handling tasks without human intervention into labware.

https://www.iso.org/obp/ui/en/#iso:std:iso:23783:-1:ed-1:v1:en

1. **ISO 23873-2:2022**

**TITLE** Automated liquid handling systems — Part 2: Measurement procedures for the determination of volumetric performance

**S**COPE This document specifies procedures for the determination of volumetric performance of automated liquid handling systems (ALHS), including traceability and estimations of measurement uncertainty of measurement results.

This document is applicable to all ALHS with complete, installed liquid handling devices, including tips and other essential parts needed for delivering a specified volume, which perform liquid handling tasks without human intervention into labware.

NOTE For terminology and general requirements of automated liquid handling systems, see ISO 23783-1. Determination, specification, and reporting of volumetric performance of automated liquid handling systems is described in ISO 23783-3.

<https://www.iso.org/obp/ui/en/#iso:std:iso:23783:-2:ed-1:v1:en>

1. **ISO 23873-3:2022**

**TITLE** Automated liquid handling systems — Part 3: Determination, specification and reporting of volumetric performance

**SCOPE** This document provides guidance and establishes requirements for collecting and examining volumetric performance data of automated liquid handling systems (ALHS). It specifies how to index and track volumetric performance data and provides descriptive statistics for the evaluation of these data. This document also specifies reporting requirements of ALHS volumetric performance.

This document is applicable to all ALHS with complete, installed liquid handling devices, including tips and other essential parts needed for delivering a specified volume, which perform liquid handling tasks without human intervention into labware.

NOTE For terminology and general requirements of automated liquid handling systems, see ISO 23783-1. Measurement procedures for the determination of volumetric performance are given in ISO 23783-2.

<https://www.iso.org/obp/ui/en/#iso:std:iso:23783:-3:ed-1:v1:en>

1. **ISO 13132:2023**

**TITLE L**aboratory glassware — Petri dishes

**SCOPE** This document specifies requirements and tests for glass Petri dishes intended for general laboratory purposes and microbiological work

https://www.iso.org/obp/ui/en/#iso:std:iso:13132:ed-2:v1:en

We are therefore seeking views from potential users in respect of the same. The Standard is available at the Kenya Bureau of Standards Information Centre. Please tick and fill your preference of the listed option. (If the spaces provided are not enough, please attach a separate sheet of paper).

Adoption acceptable as presented

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Adoption proposal not acceptable because of the reason(s) below

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Our Recommendations are as follows

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Name and Signature (of respondent): ................................................

Position (of respondent): .....................................

On behalf of ......................................................................................... (Name of organization)

Date .........................................................................

**NOTE:** Absence of any reply or comments shall be deemed to be an acceptance of the proposal for adoption and **shall constitute an approval vote**.

**ADOPTION PROPOSAL**

| **S/No.** | **Standard Number** | **Adoption acceptable as presented** | **Adoption proposal not acceptable** | **Reason why adoption proposal not acceptable** | **Proposed Change/recommendation(s)** |
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|  | **ISO/TR 20461:2023** |  |  |  |  |
|  | **ISO/TR 16153:2023** |  |  |  |  |
|  | **ISO 8655-10:2024** |  |  |  |  |
|  | **ISO 4787:2021** |  |  |  |  |
|  | **ISO 5215:2022** |  |  |  |  |
|  | **ISO 23873-1:2022** |  |  |  |  |
|  | **ISO 23873-2:2022** |  |  |  |  |
|  | **ISO 23873-3:2022**  **ISO 13132:2023** |  |  |  |  |
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