ICS 11.080.01 SLOVENSKÁ TECHNICKÁ NORMA September 2021

STN	**Aseptické spracovanie výrobkov na zdravotnú starostlivosť Časť 6: Izolátorové systémy (ISO 13408-6: 2021)**	**STN EN ISO 13408-6 85 6537**

Aseptic processing of health care products - Part 6: Isolator systems (ISO 13408-6:2021)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/21

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EN ISO 13408-6

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ICS 11.080.01 Supersedes EN ISO 13408-6:2011

English Version

Aseptic processing of health care products - Part 6: Isolator systems (ISO 13408-6:2021)

Traitement aseptique des produits de santé - Partie 6: Systèmes isolateurs (ISO 13408-6:2021)

Aseptische Herstellung von Produkten für die Gesundheitsfürsorge - Teil 6: Isolatorensysteme (ISO 13408-6:2021)

This European Standard was approved by CEN on 7 June 2020.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 9 June 2021.

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COMITÉ EUROPÉEN DE NORMALISATION
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Ref. No. EN ISO 13408-6:2021 E

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European foreword

This document (EN ISO 13408-6:2021) has been prepared by Technical Committee ISO/TC 198 "Sterilization of health care products" in collaboration with Technical Committee CEN/TC 204 “Sterilization of medical devices” the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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

This document supersedes EN ISO 13408-6:2011 + A1:2013.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA and ZB which are an integral parts of this document.

This document is an adoption of an International Standard. As the scope of the applicable regulatory requirements differ from nation to nation and region to region, the scope of this document can differ from the scope of the European Regulations that it supports. This document supports European regulatory requirements only to the extent of the scope of the European regulations for medical devices and in vitro diagnostic medical devices. For relationship with EU Regulations, see informative Annex ZA and ZB, which are an integral part of this document.

The following referenced documents are indispensable for the application of this document. For undated references, the latest edition of the referenced document (including any amendments) applies. For dated references, only the edition cited applies. However, for any use of this standard ‘within the meaning of Annexes ZA and ZB, the user should always check that any referenced document has not been superseded and that its relevant contents can still be considered the generally acknowledged state-of-art.

When an IEC or ISO standard is referred to in the ISO standard text, this should be understood as a normative reference to the corresponding EN standard, if available, and otherwise to the dated version of the ISO or IEC standard as listed below.

NOTE The way in which these referenced documents are cited in normative requirements determines the extent (in whole or in part) to which they apply.

EN ISO 13408-6:2021 (E)

Table – Correlation between normative references and dated EN and ISO standards

Normative references as listed in Clause 2 of the ISO standard	Equivalent dated standard	
	EN	ISO
ISO 11139	EN ISO 11139:2018	ISO 11139:2018
ISO 13408-1:2008	EN ISO 13408-1:2015	ISO 13408-1:2008
ISO 13408-4	EN ISO 13408-4:2011	ISO 13408-4:2005
ISO 13408-7	EN ISO 13408-7:2015	ISO 13408-7:2012
ISO 14644-1:2015	EN ISO 14644-1:2015	ISO 14644-1:2015
ISO 14644-7	EN ISO 14644-7:2004	ISO 14644-7:2004
ISO 18362:2016	No equivalent	ISO 18362:2016
ISO/IEC/IEEE 90003	No equivalent	ISO/IEC/IEEE 90003:2018

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 13408-6:2021 has been approved by CEN as EN ISO 13408-6:2021 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the General Safety and Performance requirements of Regulation (EU) 2017/745 aimed to be covered

This European standard has been prepared under a Commission's standardisation request to provide one voluntary means of conforming to the General Safety and Performance Requirements of Regulation (EU) 2017/745 of 5 April 2017 concerning medical devices [OJ L 117].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding General Safety and Performance requirements of that Regulation, and associated EFTA regulations.

NOTE 1 Where a reference from a clause of this standard to the risk management process is made, the risk management process needs to be in compliance with Regulation (EU) 2017/745. This means that risks have to be 'reduced as far as possible', 'reduced to the lowest possible level', 'reduced as far as possible and appropriate', 'removed or reduced as far as possible', 'eliminated or reduced as far as possible', 'removed or minimized as far as possible', or 'minimized', according to the wording of the corresponding General Safety and Performance Requirement.

NOTE 2 The manufacturer's policy for determining acceptable risk must be in compliance with General Safety and Performance Requirements 1, 2, 3, 4, 5, 8, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21 and 22 of the Regulation.

NOTE 3 This Annex ZA is based on normative references according to the table of references in the European Foreword, replacing the references in the core text.

NOTE 4 When a General Safety and Performance Requirement does not appear in Table ZA.1, it means that it is not addressed by this European Standard.

Table ZA.1 — Correspondence between this European Standard and Annex I of Regulation (EU) 2017/745 [OJ L 117]

General Safety and Performance Requirements of Regulation (EU) 2017/745	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
11.3	4,5,6,7,8,9,10	This standard provides requirements for the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing. This General Safety and Performance Requirement is addressed only with regard to devices for which use of isolators for aseptic processing is appropriate. In conjunction with EN ISO 13408-1, this relevant General Safety and Performance Requirement is only partly addressed in this European Standard. Design and packaging for maintenance of sterility are not covered. Aspects of manufacture other

		than those related to maintenance of a specific microbial state by aseptic processing within an isolator are not covered.
11.4 first sentence only	4,5,6,7,8,9,10	This standard provides requirements for the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing. This General Safety and Performance Requirement is addressed only with regard to devices for which use of isolators for aseptic processing is appropriate. In conjunction with EN ISO 13408-1, this relevant General Safety and Performance Requirement is only partly addressed in this European Standard. Design and packaging for maintenance of sterility are not covered. Evidence that the integrity of the packaging is maintained to the point of use is not covered. Aspects of manufacture other than those related to maintenance of sterility during aseptic processing within an isolator are not covered.
11.5	4,5,6,7,8,9,10	This standard provides requirements for the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing. This General Safety and Performance Requirement is addressed only with regard to devices for which use of isolators for aseptic processing is appropriate. In conjunction with EN ISO 13408-1, this relevant General Safety and Performance Requirement is only partly addressed in this European Standard. Design and packaging for maintenance of sterility is not covered. Aspects of manufacture other than those related to maintenance of sterility during aseptic processing within an isolator are not covered.

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

Annex ZB
(informative)

Relationship between this European Standard and the General Safety and Performance Requirements of Regulation (EU) 2017/746 aimed to be covered

This European standard has been prepared under a Commission's standardisation request to provide one voluntary means of conforming to the General Safety and Performance Requirements of Regulation (EU) 2017/746 of 5 April 2017 concerning in vitro diagnostic medical devices [OJ L 117].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZB.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding General Safety and Performance Requirements of that Regulation, and associated EFTA regulations.

NOTE 1 Where a reference from a clause of this standard to the risk management process is made, the risk management process needs to be in compliance with Regulation (EU) 2017/746. This means that risks have to be 'reduced as far as possible', 'reduced to a level as low as reasonably practicable', 'reduced to the lowest possible level', 'reduced as far as possible and appropriate', 'removed or reduced as far as possible', 'eliminated or reduced as far as possible', 'prevented' or 'minimized', according to the wording of the corresponding General Safety and Performance Requirement.

NOTE 2 The manufacturer's policy for determining acceptable risk must be in compliance with General Safety and Performance Requirements 1, 2, 3, 4, 5, 8, 10, 11, 13, 15, 16, 17, 18 and 19 of the Regulation.

NOTE 3 This Annex ZB is based on normative references according to the table of references in the European Foreword, replacing the references in the core text.

NOTE 4 When a General Safety and Performance Requirement does not appear in Table ZB.1, it means that it is not addressed by this European Standard.

Table ZB.1 — Correspondence between this European standard and Annex I of Regulation (EU) 2017/746 [OJ L 117]

General Safety and Performance Requirements of Regulation (EU) 2017/746	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
11.2	4,5,6,7,8,9,10	This standard provides requirements for the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing. This General Safety and Performance Requirement is addressed only with regard to devices for which use of isolators for aseptic processing is appropriate. In conjunction with EN ISO 13408-1, this relevant General Safety and

		Performance Requirement is only partly addressed in this European Standard. Design and packaging for maintenance of sterility are not covered. Aspects of manufacture other than those related to maintenance of a specific microbial state by aseptic processing within an isolator are not covered.
11.3	4,5,6,7,8,9,10	This standard provides requirements for the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing. This General Safety and Performance Requirement is addressed only with regard to devices for which use of isolators for aseptic processing is appropriate. In conjunction with EN ISO 13408-1, this relevant General Safety and Performance Requirement is only partly addressed in this European Standard. Design and packaging for maintenance of sterility is not covered. Aspects of manufacture other than those related to maintenance of sterility during aseptic processing within an isolator are not covered.

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

INTERNATIONAL STANDARD

ISO 13408-6

Second edition
2021-04

Aseptic processing of health care products —

Part 6: Isolator systems

Traitement aseptique des produits de santé —

Partie 6: Systèmes isolateurs

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 198, *Sterilization of health care products*.

This second edition cancels and replaces the first edition (ISO 13408-6:2005), which has been technically revised. It also incorporates the Amendment ISO 13408-6:2005/Amd.1:2013. The main changes compared to the previous edition are as follows:

— changes to the Introduction;

— changes to the Scope;

— addition of the new Clause 5 "Basic principle of Isolator system";

— addition of risk management approach in Clause 6 "Isolator system specification";

— addition of new informative Annex A "Devices acting as transfer ports for portable and mobile equipment";

— addition of new informative Annex B "Isolator system – Explanation of terms used and flow of air and material";

— addition of new informative Annex C "Isolator system – Direct/indirect product contact surfaces "

A list of all parts in the ISO 13408 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

A health care product that is labelled “sterile” is manufactured using suitably designed, validated and controlled processes. Wherever possible, it is terminally sterilized in its final, sealed container. When this is not possible, the product is aseptically processed.

Aseptic processing is an exacting and demanding discipline designed to maintain sterility through all stages of preparation, manufacturing, filling and sealing in final containers. It relies on a number of independent factors for prevention of recontamination of previously sterilized components during the assembly or filling of product into a final container.

An effective risk management system addressing aseptic processing design (including the use of barrier separation technology), validation and control, and which identifies, assesses, eliminates (where applicable) and controls contamination risks is a prerequisite to provide assurance of sterility for aseptically processed product.

Various separation systems exist to protect the critical processing zone of an aseptic processing area from non-viable particulate and microbiological contamination and to separate process operators from the critical processing zone.

These systems range from controlled airflow devices based on aerodynamic protection through to separation barriers that combine physical and aerodynamic protection to separate the external cleanroom environment from the critical processing zone, minimizing exposure of this zone to process operators and thereby reducing the opportunities for contamination during processing.

Isolator systems provide physical separation whilst facilitating operator intervention into the controlled processing environment under barrier conditions typically via sealed glove-sleeve systems that are physically connected with glove-ports to the isolator barrier screen(s). To establish a controlled environment, reduction of viable and non-viable particulates within isolators is achieved by validated and reproducible cleaning and bio-decontamination processes, principally achieved through the use of automated methods.

In addition to control of bio-contamination and non-viable particulates, isolator systems can include control features, which together with operating practices provide product containment to control cross contamination between process contaminants and product batches, and to manage risk to operators.

INTERNATIONAL STANDARD **ISO 13408-6:2021(E)**

Aseptic processing of health care products —

Part 6:
Isolator systems

1 Scope

This document specifies the requirements for and provides guidance on the specification, selection, qualification, bio-decontamination, validation, operation and control of isolator systems related to aseptic processing of health care products and processing of cell-based health care products.

This document does not specify requirements for restricted access barrier systems (RABS).

This document does not supersede or replace national regulatory requirements such as Good Manufacturing Practices (GMPs) and/or compendia requirements that pertain in particular to national or regional jurisdictions.

This document does not specify requirements for isolators used for sterility testing; however, some of the principles and information in this document could be applicable to this application.

This document does not define biosafety containment requirements.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13408-1:2008, *Aseptic processing of health care products — Part 1: General requirements*

ISO 13408-4, *Aseptic processing of health care products — Part 4: Clean-in-place technologies*

ISO 13408-7, *Aseptic processing of health care products — Part 7: Alternative processes for medical devices and combination products*

ISO 14644-1:2015, *Cleanrooms and associated controlled environments — Part 1: Classification of air cleanliness by particle concentration*

ISO 14644-7, *Cleanrooms and associated controlled environments — Part 7: Separative devices (clean air hoods, gloveboxes, isolators and mini-environments)*

ISO 18362, *Manufacture of cell-based health care products — Control of microbial risks during processing*

ISO/IEC 90003, *Software engineering — Guidelines for the application of ISO 9001:2015 to computer software*

ISO 11139, *Sterilization of health care products — Vocabulary of terms used in sterilization and related equipment and process standards*

