



SLOVENSKI STANDARD SIST EN ISO 21009-2:2016

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Nadomešča:

SIST EN 13458-3:2003

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Kriogene posode - Stabilne, vakuumsko izolirane posode - 2. del: Zahteve za obratovanje (ISO 21009-2:2015)

Cryogenic vessels - Static vacuum insulated vessels - Part 2: Operational requirements (ISO 21009-2:2015)

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Kryo-Behälter - Ortsfeste vakuumisolierte Behälter - Teil 2: Betriebsbedingungen (ISO 21009-2:2015)

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Réipients cryogéniques - Réipients fixes isolés sous vide - Partie 2: Exigences de fonctionnement (ISO 21009-2:2015)

Ta slovenski standard je istoveten z: EN ISO 21009-2:2015

ICS:

23.020.40 Proti mrazu odporne posode Cryogenic vessels
(kriogenske posode)

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EUROPEAN STANDARD

EN ISO 21009-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2015

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Supersedes EN 13458-3:2003

English Version

Cryogenic vessels - Static vacuum insulated vessels - Part 2: Operational requirements (ISO 21009-2:2015)

Réceptifs cryogéniques - Réceptifs fixes isolés sous vide - Partie 2: Exigences de fonctionnement (ISO 21009-2:2015)

Kryo-Behälter - Ortsfeste vakuumisolierte Behälter - Teil 2: Betriebsanforderungen (ISO 21009-2:2015)

This European Standard was approved by CEN on 24 October 2015.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN ISO 21009-2:2015) has been prepared by Technical Committee ISO/TC 220 "Cryogenic vessels" in collaboration with Technical Committee CEN/TC 268 "Cryogenic vessels and specific hydrogen technologies applications" the secretariat of which is held by AFNOR.

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 June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

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

This document supersedes EN 13458-3:2003.

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.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 21009-2:2015 has been approved by CEN as EN ISO 21009-2:2015 without any modification.

Annex ZA
(informative)
Relationship between this European Standard and the Essential Requirements of EU Directive 2014/68/EU

This European Standard has been prepared under a mandate given to CEN by the European Commission to provide a means of conforming to Essential Requirements of the New Approach Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 on the harmonization of the laws of the Member States relating to the making available on the market of pressure equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the 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 Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this International Standard and Directive 2014/68/EU

Clause(s)/sub-clause(s) of this standard	Essential Requirements (ERs) of Directive 2014/68/EU	Qualifying remarks/Notes
Clauses 5, 6, 7, 8, 9, 10, 11 and 12	Annex I §3.4	Operating instructions

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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INTERNATIONAL STANDARD

ISO 21009-2

Second edition
2015-12-01

Cryogenic vessels — Static vacuum insulated vessels —

Part 2: Operational requirements

Réipients cryogéniques — Réipients fixes isolés sous vide —

Partie 2: Exigences de fonctionnement

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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ISO 21009-2:2015(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.

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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 220, *Cryogenic vessels*.

This second edition cancels and replaces the first edition (ISO 21009-2:2006), which has been technically revised.

ISO 21009 consists of the following parts, under the general title *Cryogenic vessels — Static vacuum insulated vessels*:

- *Part 1: Design, fabrication, inspection and tests*
- *Part 2: Operational requirements*

Cryogenic vessels — Static vacuum insulated vessels —

Part 2: Operational requirements

1 Scope

This part of ISO 21009 specifies operational requirements for static vacuum insulated vessels designed for a maximum allowable pressure of more than 50 kPa (0,5 bar). It may also be used as a guideline for vessels designed for a maximum allowable pressure of less than 50 kPa (0,5 bar).

This part of ISO 21009 applies to vessels designed for cryogenic fluids specified in ISO 21009-1.

Static cryogenic vessels are often partly equipped by the manufacturer, but may be installed or re-installed by another party, such as the operator, user or owner.

NOTE 1 For the installation of these vessels, additional requirements can apply; these are defined in specific regulations.

NOTE 2 Some requirements of this standard can be covered by local regulations, e.g. safety distances, occupational safety and health. Where there is a conflict between the requirements of this International Standard and any applicable local regulation, the local regulation always takes precedence.

2 Normative references

SIST EN ISO 21009-2:2016

The following referenced documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 23208, *Cryogenic vessels — Cleanliness for cryogenic service*

ISO 21009-1, *Cryogenic vessels — Static vacuum-insulated vessels — Part 1: Design, fabrication, inspection and tests*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

putting into service

operation by which a *vessel* (3.8) is prepared to be used

Note 1 to entry: It applies to either a new vessel being used for the first time or an existing vessel being returned to service.

3.2

filling

operation by which a *vessel* (3.8) undergoes a prefill check, filling with a cryogenic fluid and an after-fill check

3.3

withdrawal

operation by which the product is taken from a *vessel* (3.8) connected to the supply system