

Krüogeenanumad. Staatilised vaakumisolatsiooniga anumad. Osa 3: Tootmisnõuded

Cryogenic vessels - Static vacuum insulated vessels
- Part 3: Operational requirements

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13458-3:2003 sisaldab Euroopa standardi EN 13458-3:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 06.06.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13458-3:2003 consists of the English text of the European standard EN 13458-3:2003.</p> <p>This document is endorsed on 06.06.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: This European Standard specifies operational requirements for static vacuum insulated vessels designed for a maximum allowable pressure of more than 0.5 bar. It may also be used as a guideline for vessels designed for a maximum allowable pressure of less than 0,5 bar</p>	<p>Scope: This European Standard specifies operational requirements for static vacuum insulated vessels designed for a maximum allowable pressure of more than 0.5 bar. It may also be used as a guideline for vessels designed for a maximum allowable pressure of less than 0,5 bar</p>
--	--

ICS 23.020.40

Võtmesõnad:

ICS 23.020.40

English version

**Cryogenic vessels - Static vacuum insulated vessels - Part 3:
Operational requirements**

Réceptacles cryogéniques - Réceptacles fixes isolés sous vide
- Partie 3: Exigences opérationnelles

Kryo-Behälter - Ortsfeste vakuum-isolierte Behälter - Teil 3:
Betriebsanforderungen

This European Standard was approved by CEN on 21 February 2003.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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

Contents

1	Scope.....	5
2	Normative references	5
3	Terms and definitions	5
4	Personnel training	7
5	General safety requirements.....	7
5.1	General	7
5.2	Safety considerations.....	7
6	Installation	8
6.1	General requirements	8
6.2	Indoor installation	8
6.3	Outdoor installation	9
7	Inspection.....	9
7.1	Inspection before putting into service.....	9
7.2	Periodic inspection	10
7.3	Inspection of safety valves/bursting discs.....	11
8	Putting into service.....	12
9	Filling	12
10	Taking out of service	13
11	Maintenance and repair	13
12	Additional requirements for flammable gases	14
12.1	General	14
12.2	Electrical equipment and installation/earthing	14
12.3	Installation	15
12.4	Filling	15
12.5	Maintenance, repair and taking out of service	16
13	Emergency equipment/procedures	16
Annex A	(informative) Example of an emergency procedure	17
Annex B	(informative) Safety distances	18

Foreword

This document (EN 13458-3:2003) has been prepared by Technical Committee CEN/TC 268 "Cryogenic vessels", 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 November 2003, and conflicting national standards shall be withdrawn at the latest by November 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(s).

For relationship with EU Directive(s), 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Annexes A and B are informative.

EN 13458 consists of the following Parts under the general title, *Cryogenic vessels – Static vacuum insulated vessels*:

- *Part 1: Fundamental requirements.*
- *Part 2: Design, fabrication, inspection and testing.*
- *Part 3: Operational requirements.*

Introduction

Elements of this document support the requirements of the Pressure Equipment Directive and other national or local requirements.

Static cryogenic vessels are often partly equipped by the manufacturer, but may be installed or re-installed by another party, such as the operator, the user or the owner. For this reason some of the scope this European Standard which includes installation, putting into service, inspection, filling, maintenance and emergency procedure overlaps with some of the parts EN 13458-1 and EN 13458-2.

1 Scope

1.1 This European Standard specifies operational requirements for static vacuum insulated vessels designed for a maximum allowable pressure of more than 0.5 bar. It may also be used as a guideline for vessels designed for a maximum allowable pressure of less than 0,5 bar.

1.2 This European Standard applies to vessels designed for cryogenic fluids specified in EN 13458-1.

2 Normative references

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).

EN 12300, *Cryogenic vessels - Cleanliness for cryogenic service*.

EN 13458-1:2002 *Cryogenic vessels - Static vacuum insulated vessels – Part 1: Fundamental requirements*.

EN 13458-2:2002, *Cryogenic vessels - Static vacuum insulated vessels – Part 2: Design, fabrication, inspection and testing*.

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply in addition to those given in EN 13458-1:2002.

3.1

putting into service

operation by which a vessel is prepared to be used for the first time

3.2

filling

operation by which a vessel 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 connected to the supply system

3.4

outdoor location

location outside of any building or structure and not enclosed by more than two walls

3.5

underground location

area or room whose ground or floor is on all sides significantly lower than the adjacent ground surfaces

NOTE Installations should be considered on an individual base after a suitable and sufficient risk assessment has been carried out.

3.6

safety distance

safety distance from a piece of equipment with inherent hazard is that minimum separation which will mitigate the effect of a likely foreseeable incident and prevent a minor incident escalating into a larger incident