# Krüogeenanumad. Krüogeensüsteemide hooldamise ventiilid

Cryogenic vessels - Valves for cryogenic service



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN
1626:1999 sisaldab Euroopa standardi EN
1626:1999 ingliskeelset teksti.

Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 1626:1999 consists of the English text of the European standard EN 1626:1999.

This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This standard specifies the requirements for the design, manufacture and testing of valves for cryogenic service, i.e. for operation with cryogenic fluids below - 10°C as well as ambient conditions to allow to start-up and run-down. It specifies additional requirements for cryogenic service for the appropriate valve product standard.

#### Scope:

This standard specifies the requirements for the design, manufacture and testing of valves for cryogenic service, i.e. for operation with cryogenic fluids below - 10°C as well as ambient conditions to allow to start-up and run-down. It specifies additional requirements for cryogenic service for the appropriate valve product standard.

ICS 23.020.40, 23.060.01

Võtmesõnad:

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1626

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#### **English version**

Cryogenic vessels

Valves for cryogenic service

Récipients cryogéniques – Robinets pour usage cryogénique

Kryo-Behälter – Absperrarmaturen für tiefkalten Betrieb

This European Standard was approved by CEN on 1999-03-03.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

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

## CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

#### **Contents**

Fo	reword	2
1	Scope	3
2	Normative references	3
3	Definitions	3
<b>4</b> 4.1 4.2	Requirements	4 4 5
<b>5</b> 5.1 5.2		6
	Cleanliness	
7	Marking	8
An	nex A (informative) Recommended methods for leak tightness testing of cryogenic valves	9
An or	nex ZA (informative) Clauses of this European Standard addressing essential requirements other provisions of EU directives	11

#### **Foreword**

This European Standard 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 September 1999, and conflicting national standards shall be withdrawn at the latest by September 1999.

This European Standard 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 standard.

This document also supports the objectives of the framework Directives on Transport of dangerous Goods. This standard has been submitted for reference into the RID and/or the technical annexes of the ADR.

Therefore, the standards listed in the normative references and covering basic requirements of the RID/ADR not addressed within the present document are normative only when the standards themselves are referred to in the RID and/or in the technical annexes of the ADR.

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, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Page 3 EN 1626 : 1999

9

#### 1 Scope

This standard specifies the requirements for the design, manufacture and testing of valves for cryogenic service, i.e. for operation with cryogenic fluids (as defined in prEN 1251-1:1995) below - 10 °C as well as at ambient conditions to allow for start-up and run-down. It specifies additional requirements for cryogenic service for the appropriate valve product standard.

It applies to sizes up to DN 150 and vacuum jacketed cryogenic valves.

This standard is not applicable to safety valves and valves for liquefied natural gas (LNG).

It is intended that the valve be designed and tested to satisfy the generally accepted nominal pressure e.g. PN 40. Valves may then be selected with a PN equal to or greater than the maximum allowable pressure (PS) of the equipment to which it is to be used.

#### 2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at 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.

prEN 19:1996, Industrial valves - Marking

prEN 1251-1:1995, Cryogenic vessels - Transportable vacuum insulated of not more than 1000 litres volume - Part 1: Fundamental requirements

EN 1252-1, Cryogenic vessels - Materials - Part 1: Toughness requirements for temperatures below - 80 °C

EN 1333, Pipework components - Definition and selection of PN

prEN 1503-1:1994, Valves - Shell materials - Part 1: Steels

prEN 1503-2:1994, Valves - Shell materials - Part 2: ISO-steels

prEN 1503-3:1994, Valves - Shell materials - Part 3 Cast iron

prEN 1503-4:1997, Valves - Shell materials - Part 4 Copper alloys specified in European Standards

EN 1797-1, Cryogenic vessels - Gas/material compatibility - Part 1: Oxygen compatibility

EN 12300, Cryogenic vessels - Cleanliness for cryogenic service

EN ISO 6708, Pipework components - Definition and selection of DN (nominal size) (ISO 6708:1995)

ISO 5208, Industrial valves - Pressure testing of valves

#### 3 Definitions

For the purpose of this standard the following definitions apply:

#### 3.1

#### nominal size (DN)

Is defined in accordance with EN ISO 6708.

#### 3.2

#### nominal pressure (PN)

Is defined in accordance with EN 1333.