

## Krüogeenanumad. Krüogeensete talitluste ühenduslülid

Cryogenic vessels - Couplings for cryogenic service

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13371:2002 sisaldab Euroopa standardi EN 13371:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 19.06.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13371:2002 consists of the English text of the European standard EN 13371:2001.</p> <p>This document is endorsed on 19.06.2002 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>
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<p><b>Käsitlusala:</b></p> <p>This standard specifies the minimum requirements for the design, manufacture and testing of couplings for cryogenic service to be used for temporary for connecting of flexible hoses to cryogenic vessels at the following operating conditions: design temperature range from -270 °C to +65 °C; maximum nominal pressure: 80 bar; nominal size (DN) from 10 to 100. Permanent connections such as flanges and unions are not covered by this standard.</p>	<p><b>Scope:</b></p> <p>This standard specifies the minimum requirements for the design, manufacture and testing of couplings for cryogenic service to be used for temporary for connecting of flexible hoses to cryogenic vessels at the following operating conditions: design temperature range from -270 °C to +65 °C; maximum nominal pressure: 80 bar; nominal size (DN) from 10 to 100. Permanent connections such as flanges and unions are not covered by this standard.</p>
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**ICS** 23.020.40, 23.040.70

**Võtmesõnad:** con, coolers, cooling equipment, cryogenic, cryogenic equipment, cryogenic vessels, cryogenics, deep cooling, definition, definitions, dimensioning, minimum requirements, operating conditions, qualification tests, specification (approval), specifications, testing

ICS 23.020.40; 23.040.70

English version

## Cryogenic vessels - Couplings for cryogenic service

Réipients cryogéniques - Raccords pour service  
cryogénique

Kryo-Behälter - Kupplungen für den tiefkalten Betrieb

This European Standard was approved by CEN on 11 November 2001.

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



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## 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 June 2002, and conflicting national standards shall be withdrawn at the latest June 2002.

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.

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.

## 1 Scope

This European Standard specifies the minimum requirements for the design, manufacture and testing of couplings for cryogenic service to be used for temporary connecting of flexible hoses to cryogenic vessels at the following operating conditions :

- design temperature range from - 270 ° C to + 65 ° C ;
- maximum nominal pressure : 80 bar ;
- nominal size (DN) from 10 to 100.

Permanent connections such as flanges and unions are not covered by this standard.

It is intended that the couplings should be designed, tested and marked for service at one of the generally accepted pressure e.g. PN 40. Couplings can then be selected with a PN equal to or greater than the maximum allowable pressure (PS) of the equipment for which they are 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 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 1252-1, *Cryogenic Vessels - Materials - Part 1: Toughness requirements for temperatures below - 80 °C*

EN 1252-2, *Cryogenic Vessels - Materials - Part 2: Toughness requirements for temperatures between - 10 °C to - 80 °C*

EN 1333:1996, *Pipework components - Definition and selection of PN*

EN 1797-1, *Cryogenic vessels - Gas/materials compatibility*

EN 12300, *Cryogenic vessels – Cleanliness*

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

## 3 Terms and definitions

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

### 3.1

#### **nominal size (DN)**

as defined in EN ISO 6708:1995

### 3.2

#### **nominal pressure (PN)**

as defined in EN 1333:1996

NOTE 1 PN ≥ PS (as defined in PED)

NOTE 2 See also the last sentence of the scope.

### 3.3

#### **design temperature range**

highest and lowest temperature to which the coupling is specified