

**Tööstuslikud ventiilid.  
Metallmaterjalidest valmistatud  
membraanventiilid**

Industrial valves - Diaphragm valves made of  
metallic materials

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13397:2002 sisaldab Euroopa standardi EN 13397:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.05.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13397:2002 consists of the English text of the European standard EN 13397:2001.</p> <p>This document is endorsed on 16.05.2002 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> This European Standard specifies requirements for diaphragm valves with metallic shell materials.</p>	<p><b>Scope:</b> This European Standard specifies requirements for diaphragm valves with metallic shell materials.</p>
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**ICS** 23.060.01

**Võtmesõnad:** conformity, conformity tests, connections, definition, definitions, diaphragm valves, industrial fittings, industrial pipework systems, industrial piping, industries, marking, metal casings, pipelines, specification (approval), specifications, testing, types, valves

ICS 23.060.01

English version

## Industrial valves - Diaphragm valves made of metallic materials

Robinetterie industrielle - Robinets métalliques à  
membrane

Industriearmaturen - Membranarmaturen aus Metall

This European Standard was approved by CEN on 29 September 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 69 "Industrial valves", 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 May 2002, and conflicting national standards shall be withdrawn at the latest by May 2002.

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 standard.

This standard contains an annex A that is normative and an annex B that is informative.

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 requirements for diaphragm valves with metallic shell materials.

The range of nominal sizes covered is :

- for flanged valves : sizes DN 10, DN 15, DN 20, DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150, DN 200, DN 250 and DN 300 ;
- for screwed valves : sizes  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$ , 1,  $1\frac{1}{4}$ ,  $1\frac{1}{2}$ , 2,  $2\frac{1}{2}$  and 3 ;
- for weld end valves : sizes DN 8, DN 10, DN 15, DN 20, DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150, DN 200, DN 250 and DN 300.

The range of PN and Class designations covered is :

- PN 6, PN 10, PN 16 and PN 25 ;
- Class 150.

## 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 545, *Ductile iron pipes, fittings, accessories and their joints for water pipelines – Requirements and test methods.*

EN 558-1, *Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems - Part 1: PN-designated valves.*

EN 558-2, *Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems - Part 2: Class-designated valves.*

EN 736-1, *Valves -Terminology - Part 1: Definitions of types of valves.*

EN 736-2, *Valves -Terminology - Part 2: Definitions of components of valves.*

EN 736-3, *Valves -Terminology - Part 3: Definitions of terms.*

EN 1092-2, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2: Cast Iron flanges.*

EN 1515-1, *Flanges and their joints - Bolting – Part 1: Selection of bolting.*

EN 1561, *Founding – Grey cast irons.*

EN 1562, *Founding – Malleable cast irons.*

EN 1563, *Founding – Spheroidal graphite cast irons.*

EN 1982, *Copper and copper alloys – Ingots and castings.*

EN 12420, *Copper and copper alloys – Forgings.*

EN 12570, *Industrial valves – Method for sizing the operating element.*

EN 12627, *Industrial valves - Butt welding end profile.*

EN 12760, *Valves - Socket welding ends for steel valves.*

EN 12982, *Industrial valves - End-to-end and centre-to-end dimensions for butt welding end valves.*

prEN 19<sup>1)</sup>, *Industrial valves - Marking of metallic valves.*

prEN 1092-1<sup>1)</sup>, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges.*

prEN 1092-3<sup>1)</sup>, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 3: Copper alloy flanges.*

prEN 1759-1<sup>1)</sup>, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, Class designated - Part 1: Steel flanges, NPS ½ to 24.*

prEN 1759-3<sup>1)</sup>, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, Class designated - Part 3: Copper alloy and composite flanges.*

prEN 10226-1<sup>1)</sup>, *Pipe threads where pressure tight joints are made on the threads - Part 1: Designation, dimensions and tolerances.*

prEN 12266-1<sup>1)</sup>, *Industrial valves - Testing of valves - Part 1: Pressure tests, test procedures and acceptance criteria - Mandatory requirements.*

prEN 12516-1<sup>1)</sup>, *Industrial valves - Shell design strength - Part 1: Tabulation method for steel valve shells.*

prEN 12516-2<sup>1)</sup>, *Industrial valves - Shell design strength - Part 2: Calculation methods for steel valve shells.*

prEN 12516-3<sup>1)</sup>, *Valves - Shell design strength - Part 3: Experimental method.*

EN ISO 5210, *Industrial valves - Multi-turn valve actuator attachments (ISO 5210:1991).*

ISO 7-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation.*

ISO 228-1, *Pipe threads where pressure-tight joints are made on the threads - Part 1: Dimensions, tolerances and designation.*

ISO 1043-1, *Plastics - Symbols - Part 1: Basic polymers and their basic characteristics.*

ISO 1629, *Rubbers and lattices – Nomenclature.*

ISO 10422, *Petroleum and natural gas industries - Threading, gaging and thread inspection of casing, tubing and line pipe threads – Specifications.*

ANSI/ASME B1.20.1, *Pipe threads, General purpose.*

**NOTE** This European Standard supports some of the Essential Requirements of the Pressure Equipment Directive 97/32/EC. The essential requirements covered are listed in annex ZA (informative). It should be noted that this standard is not self sufficient and should be used with the normative references listed herein. Reference should also be made to the annex ZA in the relevant normative reference.

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<sup>1)</sup> To be published.