# Tööstuslikud ventiilid. Malmventiilid

Industrial valves - Cast iron globe valves

**EESTI STANDARDI EESSÕNA** **NATIONAL FOREWORD**

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| Käesolev Eesti standard EVS-EN 13789:2003 sisaldab Euroopa standardi EN 13789:2002 ingliskeelset teksti.<br><br>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.<br><br>Standard on kättesaadav Eesti standardiorganisatsioonist. | This Estonian standard EVS-EN 13789:2003 consists of the English text of the European standard EN 13789:2002.<br><br>This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.<br><br>The standard is available from Estonian standardisation organisation. |

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| **Käsitlusala:**<br>This European Standard specifies the requirements for cast iron globe valves in straight, angle or oblique pattern (see EN 736-2) with flanged or threaded end connections | **Scope:**<br>This European Standard specifies the requirements for cast iron globe valves in straight, angle or oblique pattern (see EN 736-2) with flanged or threaded end connections |

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**Võtmesõnad:**

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English version

# Industrial valves - Cast iron globe valves

Robinetterie industrielle - Robinets à soupape en fonte

Industriearmaturen - Ventile aus Gusseisen

This European Standard was approved by CEN on 9 September 2002.

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



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# Contents

## Foreword

This document (EN 13789:2002) 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 April 2003, and conflicting national standards shall be withdrawn at the latest by April 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.

In this European Standard the Annex A is informative and Annex B is normative.

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

## 1 Scope

This European Standard specifies the requirements for cast iron globe valves in straight, angle or oblique pattern (see EN 736-2) with flanged or threaded end connections.

This standard is applicable to cast iron globe valves mainly used for industrial and general purpose applications. However, they can be used for other applications provided the requirements of the relevant performance standards are met.

The range of nominal sizes covered is:

a) flanged:

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; DN 300; DN 350; DN 400.

b) threaded:

½, ¾, 1, 1¼, 1½, 2.

The range of pressure designations covered is:

a) for flanged end valves:

PN 6; PN 10; PN 16; PN 25; PN 40;

b) for threaded end valves:

PN 6; PN 10; PN 16.

## 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 19, *Industrial Valves - Marking of metallic valves*.

EN 545:2002, *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-facedimensions of metal valves for use in flanged pipe systems - Part 1 : PN-designated valves*.

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

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

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

EN 1092-2:1997, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2 : Cast iron flanges.*

EN 1561:1997, *Founding - Grey cast irons*.

EN 1562:1997, *Founding - Malleable cast irons*.

EN 1563:1997, *Founding - Spheroidal graphite cast irons.*

prEN 12266-1, *Industrial valves - Testing of valves - Part 1 : Pressure tests, test procedures and acceptance criteria – Mandatory requirements*.

EN 12266-2, *Industrial valves - Testing of valves - Part 2 : Tests, test procedures and acceptance criteria – Supplementary requirements*.

EN 12351, *Industrial valves - Protective caps for valves with flanged connections*.

EN 12516-3, *Valves - Shell design strength – Part 3 : Experimental method*.

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

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

ISO 7-1:1994, *Pipe threads where pressure-tight joints are made on the threads - Part 1 : Dimensions, tolerances and designation*.

ISO 185:1988, *Grey cast iron – Classification.*

ISO 1083:1987, *Spheroidal graphite cast iron – Classificaton.*

ISO 5922:1981, *Malleable cast iron.*

## 3 Terms and definitions

For the purposes of this European Standard the terms and definitions of types of valves and components and the definitions of terms given in EN 736-1, EN 736-2 and EN-736-3 apply.

NOTE The terms maximum allowable pressure, *PS*, and test pressure, *PT*, defined in EU Directive 97/23/EC (PED) are equivalent to the terms allowable pressure, $p_s$, and test pressure, $p_t$, defined in EN 736-3.

## 4 Requirements

### 4.1 Design

#### 4.1.1 Materials

**4.1.1.1** The body and bonnet materials shall be selected from Table 1. The limits of use given in the material standard shall be taken into account.

For PN 40 rated valves, spheroidal graphite cast iron only shall be used.