

Tööstusventiilid. Vasesulamist siibrid

Industrial valves - Copper alloy gate valves

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12288:2010 sisaldab Euroopa standardi EN 12288:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.08.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 26.05.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12288:2010 consists of the English text of the European standard EN 12288:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.08.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 26.05.2010.

The standard is available from Estonian standardisation organisation.

ICS 23.060.30

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English Version

Industrial valves - Copper alloy gate valves

Robinnerie industrielle - Robinets-vannes en alliage de
cuivre

Industriearmaturen - Schieber aus Kupferlegierungen

This European Standard was approved by CEN on 16 April 2010.

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Foreword

This document (EN 12288:2010) 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of an identical text or by endorsement, at the latest by November 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12288:2003

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 97/23/EC.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

This document supersedes EN 12288:2003 where the following modifications were made:

- a) the normative references were updated in Clauses 2 and 3, in 4.1.1, in 4.1.4, in Table 5, in 4.2.4.3, in Tables A.1 and A.2, in Table B.1;
- b) Table 5 and Table B.1 were corrected;
- c) in Table ZA.1:
 - 1) sub-clause 4.2 was correlated to PED Annex I, section 2.1;
 - 2) sub-clause 4.2.3 was correlated to PED Annex I, section 2.2;
 - 3) correlation of sub-clause 4.2.3 to PED Annex I, section 2.2.1 was deleted;
 - 4) correlation of sub-clause 4.2.6 to PED Annex I, section 2.5 was deleted;
 - 5) correlation of Annex A to PED Annex I, section 4.2 was deleted.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard applies to copper alloy gate valves for general use having flanged, threaded, capillary, compression or loose nut/union body ends.

This European Standard specifies the design and performance requirements including materials, pressure/temperature ratings, dimensions, test procedures and marking.

For some specific fields of application, for example, drinking water or gas, valves to this European Standard can be used provided the requirements of the relevant performance standards are met. Approval by the relevant regulatory body may be required.

The range of nominal sizes is DN 8 to DN 500 and of nominal diameters is 8 mm to 110 mm.

The range of pressure designations covered is PN 6; PN 10; PN 16; PN 20; PN 25; PN 32; PN 40; PN 63; Class 150 and Class 300.

For the applicability of each nominal size/diameter and each pressure designation to the different types of valve end, see 4.1.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 19:2002, *Industrial valves — Marking of metallic valves*

EN 558:2008, *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — PN and Class 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 1057, *Copper and copper alloys — Seamless round copper tubes for water and gas in sanitary and heating applications*

EN 1092-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 3: Copper alloy flanges*

EN 1759-3:2003, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 3: Copper alloy flanges*

EN 1982:2008, *Copper and copper alloys — Ingots and castings*

EN 12163:1998, *Copper and copper alloys — Rod for general purposes*

EN 12164:1998, *Copper and copper alloys — Rod for free machining purposes*

EN 12167:1998, *Copper and copper alloys — Profiles and rectangular bar for general purposes*

EN 12168:1998, *Copper and copper alloys — Hollow rod for free machining purposes*

EN 12266-1:2003, *Industrial valves — Testing of valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 12266-2:2002, *Industrial valves — Testing of valves — Part 2: Tests, test procedures and acceptance criteria — Supplementary requirements*

EN 12420:1999, *Copper and copper alloys — Forgings*

EN 12449, *Copper and copper alloys — Seamless, round tubes for general purposes*

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

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

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

EN ISO 5210:1991, *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*

ASME B1.20.1:1983, *Pipe threads, general purpose (inch)*

3 Terms and definitions

For the purposes of this document, the terms and definitions of types of valves and components and the terms and definitions given in EN 736-1, EN 736-2 and EN 736-3 apply, together with the following terms and definitions.

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 736-3:2008.

3.1

loose nut end

body end provided with a tailpiece which retains a loose internally threaded nut or ring for connection to the mating component

3.2

union end

body end provided with an external thread to which is attached a threaded nut or ring, which retains a tailpiece for connection to the mating component

3.3

NPS

alphanumeric designation of size for components of a pipework system, which is used for reference purposes and which comprises, for the purpose of Class designated flanges according to this standard, the letters NPS followed by a dimensionless number which is indirectly related to the physical size of the bore or outside diameter of the end connections

NOTE The number following the letters NPS does not represent a measurable value and should not be used for calculation purposes except where specified in the relevant standard. See EN ISO 6708.

[Adapted from EN 1759-3:2003]