



NSAI
Standards

Irish Standard
I.S. EN 12288:2010

Industrial valves - Copper alloy gate valves

I.S. EN 12288:2010

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

<p><i>This document replaces:</i> EN 12288:2003</p>	<p><i>This document is based on:</i> EN 12288:2010 EN 12288:2003</p>	<p><i>Published:</i> 26 May, 2010 3 October, 2003</p>			
<p>This document was published under the authority of the NSAI and comes into effect on: 10 June, 2010</p>		<p>ICS number: 23.060.30</p>			
<table> <tr> <td data-bbox="228 1738 459 1861"> <p>NSAI 1 Swift Square, Northwood, Santry Dublin 9</p> </td> <td data-bbox="571 1767 826 1890"> <p>T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie</p> </td> <td data-bbox="900 1738 1129 1861"> <p>Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie</p> </td> </tr> </table>			<p>NSAI 1 Swift Square, Northwood, Santry Dublin 9</p>	<p>T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie</p>	<p>Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie</p>
<p>NSAI 1 Swift Square, Northwood, Santry Dublin 9</p>	<p>T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie</p>	<p>Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie</p>			
<p>Údarás um Chaighdeáin Náisiúnta na hÉireann</p>					

English Version

Industrial valves - Copper alloy gate valves

Robinetterie industrielle - Robinets-vannes en alliage de cuivre

Industriearmaturen - Schieber aus Kupferlegierungen

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

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 CEN 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Requirements	6
4.1 Classification.....	6
4.1.1 Nominal sizes.....	6
4.1.2 Nominal size relationships	7
4.1.3 PN and Class designations.....	8
4.1.4 Valve series	9
4.2 Design	9
4.2.1 General.....	9
4.2.2 Materials	9
4.2.3 Pressure/temperature ratings.....	9
4.2.4 Dimensions.....	9
4.2.5 Operation	11
4.2.6 Auxiliary connections	12
4.3 Functional characteristics	12
4.3.1 Shell design strength	12
4.3.2 Obturator design strength	12
4.3.3 Shell tightness	12
4.3.4 Seat tightness	12
4.3.5 Flow characteristics	13
4.3.6 Sizing the operating element.....	14
5 Test procedures	14
5.1 Production pressure testing.....	14
5.2 Applicability of gas tests	15
5.3 Test durations	15
6 Declaration of compliance	15
7 Designation	15
8 Marking and preparation for storage and transportation.....	16
8.1 Required markings	16
8.1.1 Mandatory markings.....	16
8.1.2 Supplementary markings.....	16
8.1.3 Other markings	16
8.1.4 Omission of markings	17
8.2 Preparation for storage and transportation	17
8.2.1 Protection	17
8.2.2 Obturator position	17
8.2.3 Body ends.....	17
Annex A (normative) Materials	18
Annex B (normative) Pressure/temperature ratings.....	20
B.1 Valves with metallic body seats and obturator seats	20
B.2 Valves with non-metallic obturator seats and/or body seats.....	21
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 97/23/EC	22
Bibliography	23

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*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-