

## SLOVENSKI STANDARD SIST EN 19:2002 01-november-2002

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Industrial valves - Marking of metallic valves

Industriearmaturen - Kennzeichnung von Armaturen aus Metall

Robinetterie industrielle - Marquage des appareils de robinetterie métalliques

## iTeh STANDARD PREVIEW

Ta slovenski standard je istoveten z:darEN 19:20021i)

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EN 19** 

EUROPÄISCHE NORM

April 2002

ICS 23.060.01 Supersedes EN 19:1992

#### **English version**

## Industrial valves - Marking of metallic valves

Robinetterie industrielle - Marquage des appareils de robinetterie métalliques

Industriearmaturen - Kennzeichnung von Armaturen aus Metall

This European Standard was approved by CEN on 27 December 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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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#### **Foreword**

This document EN 19:2002 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of an identical text or by endorsement, at the latest by October 2002, and conflicting national standards shall be withdrawn at the latest by October 2002.

This document supersedes EN 19:1992.

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.

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.

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## 1 Scope

This European Standard specifies the requirements for marking of industrial metallic valves. It defines the method of applying the markings, on the body, on a flange, on an identification plate or any other location.

When specified as a normative reference in a valve product or performance standard, this standard has to be considered in conjunction with the specified requirements of that valve product or performance standard.

The marking requirements for plastic valves are not within the scope of this standard.

#### 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 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 1503-1, Valves - Materials for bodies, bonnets and covers - Part 1: Steels specified in European Standards.

EN 1503-2, Valves - Materials for bodies, bonnets and covers - Part 2: Steels other than those specified in European Standards.

EN 1503-3, Valves - Materials for bodies, bonnets and covers - Part 3: Cast irons specified in European Standards.

prEN 1503-4, Valves - Materials for bodies, bonnets and covers - Part 4: Copper alloys specified in European Standards.

ISO 228-1, Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation.

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

ANSI/ASME B1.20.11), Pipe threads, general purpose (inch).

#### 3 Terms and definitions

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

#### 3.1

#### integral markings

integrally cast, forged or stamped markings on the body or bonnet/ cover of the valve

#### 3.2

#### marking plate

plate securely fixed to the body or bonnet/cover with one or more mandatory markings

<sup>1)</sup> is publicly available at *ANSI-American National Standards Institute (ASME-American Society of Mechanical Engineers)* 11 West 42<sup>nd</sup> Street NEW YORK, NY 10036.

NOTE See also 4.1.4.

#### 3 3

#### identification plate

plate securely fixed to the valve with supplementary or other markings

NOTE See also 4.1.4.

## 4 Requirements

#### 4.1 General

- **4.1.1** Where the requirements in a valve product or performance standard differ from those given in this standard then the requirements of the product or performance standard apply.
- **4.1.2** Mandatory markings (see 4.2) are independent of language. When it is necessary to include descriptive words so as to properly define any supplementary markings (see 4.3) or other markings (see 4.4) then any such words shall be in the language of the manufacturer and/or one of the official CEN languages.
- **4.1.3** Table 1 lists those items which shall be considered for inclusion in product or performance standards.

Details of the markings are given in clause 5.

## 4.1.4 Markings shall be located as detailed in 4.2, 4.3 and 4.40 REVIEW

Painted-on markings are not permitted. (standards.iteh.ai)

Where marking plates or identification plates are used, unless otherwise specified in product or performance standards, the material and method of fixing shall be at the discretion of the manufacturer. All marking plates and identification plates and their means of fixing shall be in a material which is resistant to atmospheric corrosion. Marking plates shall also be suitable for the allowable temperature of the valve.

### 4.2 Mandatory markings

- **4.2.1** Items 1 to 4 in Table 1 shall be marked on every valve and shall be integral markings or on a marking plate. If a valve has no defined PN or Class designation, items 7 and 9 in Table 1 are mandatory. See also 4.5.4.
- **4.2.2** Items 5 and 6 in Table 1 shall be marked on those valves requiring these markings. See 5.5 and 5.6.

#### 4.3 Supplementary markings

Items 7 to 21 in Table 1 are optional unless otherwise specified in product or performance standard. The location of supplementary markings shall be determined by the manufacturer unless otherwise specified in the relevant product or performance standard.

## 4.4 Other markings

A manufacturer having complied with the above requirements of this standard, and those of product or performance standards relevant to the individual types of valve is permitted to:

- a) mark any of the items in Table 1 additionally in a place other than that specified; e.g. if a marking is mandatory on the body or bonnet/cover it may also be repeated on the identification plate;
- b) add to the markings specified, any technical and/or commercial references, providing that there is no risk of confusion between these markings and the markings in Table 1.

For industrial valves conforming to the requirements of the EU Directive(s) stated in annex ZA, additional markings in accordance with 5.10 and 5.18 are required.

Table 1 – Valve markings

	Subject		Marking		
Item			PN designated valves	Class designated valves	Clause reference
	Nominal size	Flanged ends, Wafer type bodies	DN	DN and/or (NPS)	5.1.2
		Welding ends	DN	DN and/or (NPS)	5.1.2
1		Threaded ends	(thread size) and/or DN	(thread size) and/or (NPS)	5.1.3
		Capillary ends	(tube O/D)	(tube O/D)	5.1.4
		Compression ends	(tube O/D)	(tube O/D)	5.1.4
		Other ends	-	-	5.1.5
2	PN/Class designation		PN	CLASS	5.2
3	Material		-	-	5.3
4	Manufacturer's name or trademark		ABC	ABC	5.4
5	Arrow for direction of flow		$\rightarrow$	$\rightarrow$	5.5
6	Ring joint number		-	R	5.6
7	Maximum allowable temperature TS		ANDARD PR	°C or C	5.7
8	Threaded end identification https://standards.iteh		R, R <sub>c</sub> , R <sub>p</sub> , G, NPT or other marking according to the relevant standard	R, R <sub>c</sub> , R <sub>p</sub> , G, NPT  or other marking according to the relevant	5.8
9	Maximum a	allowable pressure PS	bar	bar	5.9
10	Product identification		-	-	5.10
11	Reference to the standard		EN	EN	5.11
12	Melt identif	ication	-	-	5.12
13	Trim		-	-	5.13
14	Service symbols		-	-	5.14
15	Internal coating, liner, lining or painting		-	-	5.15
16	Quality and test markings		-	-	5.16
17	Inspector's identification		✓	✓	5.17
18	Year of manufacture		1997 or 97	1997 or 97	5.18
19	Flow coefficient		<i>K</i> <sub>v</sub> (or <i>C</i> <sub>v</sub> )	K <sub>v</sub> (or C <sub>v</sub> )	5.19
20	Allowable differential pressure		∆ <i>p</i> bar	∆ <i>p</i> bar	5.20
21	Closing dire	ection	-	-	5.21

## 4.5 Omission of markings

**4.5.1** For valves equal to or smaller than DN 50 or thread size 2, where due to the physical size of the valve, it is not practicable to apply all the mandatory markings as required by 4.2, the relevant valve product or performance standard shall specify which markings may be omitted or alternatively placed on the identification plate or other location.

- **4.5.2** For Class designated valves where, due to the physical size of the valve, it is not practicable to incorporate the word "CLASS", it is permissible to omit the word "CLASS" or to indicate only the letters "CL".
- **4.5.3** For PN designated valves, it is permissible to omit the letters "DN" from the nominal size designation (item 1) providing the PN designation (item 2) follows immediately after the size number and on the same line, e.g. DN 50 PN 25 may be abbreviated to 50 PN 25.
- **4.5.4** Valves with compression or capillary ends have no defined PN or Class designation but such valves are not required to be marked with items 7 and 9 in Table 1.
- **4.5.5** For cast iron valves it is permissible to omit "EN" from the material designation.

## 5 Details of markings

#### 5.1 Nominal size

- **5.1.1** The nominal size marking shall be the size designation of the end connections with which the body has been provided.
- **5.1.2** For valves with flanges, butt welding or socket welding end connections or with wafer type bodies, the nominal size marking shall comprise the letters "DN" and the appropriate DN number as specified in the relevant flange, butt welding or socket welding standard, e.g. DN 100.
  - NOTE 1 For Class designated valves, the NPS marking, e.g. NPS 4 can be used in addition to or as an alternative to the DN marking. The relationship between NPS and DN is specified in the relevant flange or welding end standard.

NOTE 2 See also 4.5.3.

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**5.1.3** For threaded end valves, the nominal size marking shall be the thread size as specified in the relevant pipe thread standard. https://standards.iteh.ai/catalog/standards/sist/34f696d3-b27f-4ab6-9b37-

53fa19ac7d5f/sist-en-19-2002

NOTE In addition to, or as an alternative to the thread size marking, the DN marking can be used. The relationship between NPS and DN is specified in the relevant product or performance standard.

- **5.1.4** For capillary and compression ends, the nominal size marking shall be the outside diameter of the tube for which the valve is suitable and shall be as specified in the relevant tube standard.
- **5.1.5** For valves provided with other end connections or having the pipe end connections of differing nominal sizes or type, e.g. one flanged end and one welding end, the nominal size marking shall be as specified in the relevant product or performance standard or shall be agreed between the manufacturer and the purchaser.

#### 5.2 PN/Class designation

- **5.2.1** For PN designated valves, the marking shall comprise the letters "PN" and the appropriate PN designation number, e.g. PN 16.
- **5.2.2** For Class designated valves, the marking shall comprise the word "CLASS" and the appropriate Class designation number, e.g. CLASS 150. See also 4.5.2.

#### 5.3 Material

The marking indicating the material of the body and bonnet/cover shall be the designation and/or number given in EN 1503-1, EN 1503-2, EN 1503-3 or prEN 1503-4 as appropriate or as given in the relevant material standard. See also 4.5.5.

#### 5.4 Manufacturer's name or trademark

This marking shall be the manufacturer's name or registered trademark or company logo.