

Industrial valves - Valves for chemical and  
petrochemical process industry - Requirements and  
tests

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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English Version

## Industrial valves - Valves for chemical and petrochemical process industry - Requirements and tests

Robinetterie industrielle - Appareils de robinetterie destinés aux procédés de l'industrie chimique et pétrochimique - Prescriptions et essais

Industriearmaturen - Armaturen für die chemische und petrochemische Verfahrenindustrie - Anforderungen und Prüfungen

This European Standard was approved by CEN on 14 September 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## European foreword

This document (EN 12569:2020) 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of an identical text or by endorsement, at the latest by April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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

This document supersedes EN 12569:1999 and EN 12569:1999/AC:2000.

The main technical changes compared to the previous edition are the following:

- Clause 2 on normative references has been updated;
- Clause 3 for terms, definitions and symbols has been added;
- Clause 5 on the applicable requirements has been completely re-written;
- normative Annex A on supplementary possible steel grades for fasteners and normative Annex B for threaded holes for pneumatic connections have been added;
- informative Annex C giving basic configuration of the valve interface from actuator to the valve with a bracket has been added.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## Introduction

This document is based on the experience of the chemical and petrochemical industry and provides additional requirements to those given in EN 16668 and valve product standards.

It is assumed that the essential safety requirements of the European legislation for pressure equipment (satisfied by European product standards) and safety requirements from EN 16668 and other standards are satisfied.

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## 1 Scope

This document applies to valves of DN 15 and larger, made of metallic materials for chemical and petrochemical plants. It contains additional requirements to those contained in the relevant European product standards (e.g. EN 593, EN 1349) and EN 16668.

The use of design codes or technical rules other than described by European product standards is subject to agreement with the purchaser.

Process control devices and safety accessories are not subject of this document.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 558, *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 736-2:2016, *Valves — Terminology — Part 2: Definition of components of valves*

EN 736-3:2008, *Valves — Terminology — Part 3: Definition of terms*

EN 1092-1, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated — Part 1: Steel flanges*

EN 1267, *Industrial valves — Test of flow resistance using water as test fluid*

EN 1349, *Industrial process control valves*

EN 1515-4, *Flanges and their joints — Bolting — Part 4: Selection of bolting for equipment subject to the Pressure Equipment Directive 97/23/EC*

EN 1563, *Founding — Spheroidal graphite cast irons*

EN 1759 (all parts), *Flanges and their joint — Circular flanges for pipes, valves, fittings and accessories, Class designated*

EN 10204, *Metallic products — Types of inspection documents*

EN 10269, *Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties*

EN 12266-1:2012, *Industrial valves — Testing of metallic valves — Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*

EN 12266-2:2012, *Industrial valves — Testing of metallic valves — Part 2: Tests, test procedures and acceptance criteria – Supplementary requirements*

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

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

EN 15081, *Industrial valves — Mounting kits for part-turn valve actuator attachment*

EN 16668:2016+A1:2018, *Industrial valves — Requirements and testing for metallic valves as pressure accessories*

EN 60534-4:2006, *Industrial-process control valves — Part 4: Inspection and routine testing*

EN ISO 1179-1, *Connections for general use and fluid power — Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing — Part 1: Threaded ports (ISO 1179-1)*

EN ISO 5210, *Industrial valves — Multi-turn valve actuator attachments (ISO 5210)*

EN ISO 5211:2017, *Industrial valves — Part-turn actuator attachments (ISO 5211:2017)*

EN ISO 15848-1:2015,<sup>1</sup> *Industrial valves — Measurement, test and qualification procedures for fugitive emissions – Part 1: Classification system and qualification procedures for type testing of valves (ISO 15848-1:2015)*

### 3 Terms, definitions and symbols

#### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 736-2, EN 736-3, EN 1267, EN 16668 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

##### 3.1.1

##### **shell tapping**

threaded hole in the wall of the shell

[SOURCE: EN 736-2:2016, 3.1.1.23]

##### 3.1.2

##### **fugitive emission**

chemical or mixture of chemicals, in any physical form, which represents an unanticipated or spurious leak from equipment on an industrial site

[SOURCE: EN ISO 15848-1:2015, 3.5]

##### 3.1.3

##### **sound engineering practice**

##### **SEP**

design taking into account all relevant factors influencing safety

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<sup>1</sup> As impacted by amendment EN ISO 15848-1:2015/A1:2017.