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Will supersede EN 12569:1999

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 Verfahrensindustrie - Anforderungen und Prüfungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 69.

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

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## European foreword

This document (prEN 12569:2019) has been prepared by Technical Committee CEN/TC 69 “Industrial valves”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12569:1999.<sup>1</sup>

This second edition will supersede EN 12569:1999, which has been technically revised with the following changes:

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

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<sup>1</sup> The corrigendum EN 12569:1999/AC:2000 which impacted EN 12569:1999 will be closed as well.

## **Introduction**

This document is based on the experience of the chemical and petrochemical industry and provides requirements additional 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.

## 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 are 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 593, *Industrial valves – Metallic butterfly valves for general purposes*

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 14917, *Metal bellows expansion joints for pressure applications*

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 (IEC 60534-4:2006)*

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, *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 <http://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

##### 3.1.4

##### **anti-blow out design**

valve design which ensures that, when the valve is under pressure, the shaft or stem cannot be fully blown out of the shell by disassembly of any external part or by failure of the connection between obturator and shaft or stem even when external parts (which are not included in the bare shaft valve, e.g. bracket, lever, actuator) are removed