Priemyselné armatúry Armatúry na chemické a petrochemické priemyselné procesy Požiadavky a skúšky 13 3065

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

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/21

Obsahuje: EN 12569:2020

Oznámením tejto normy sa ruší STN EN 12569 (13 3065) z januára 2002 STN EN 12569: 2021

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 12569

October 2020

ICS 23.060.01

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

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-CENELEC 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-CENELEC 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents		Page	
Europ	European foreword3		
Introduction		4	
1	Scope		
_	•		
2	Normative references		
3	Terms, definitions and symbols		
3.1	Terms and definitions		
3.2	Symbols	7	
4	Category of valves	7	
5	Requirements	7	
5.1	Design		
5.1.1	General	7	
5.1.2	Shell design strength	9	
5.1.3	Protection against exceeding the allowable limits	9	
5.1.4	Connection to the drive		
5.1.5	Additional requirements for butterfly valves, ball and plug valves		
5.1.6	Strength of valve stem and shaft		
5.1.7	Anti-blow out design		
5.2	Materials		
5.2.1	General		
5.2.2	Spheroidal graphite cast iron to EN 1563		
5.2.3	Spheroidal graphite cast iron to EN 1563, 5.3103 and 5.3104		
5.2.4	Cast steel		
5.3	Manufacturing		
5.3.1	Welding		
5.3.2	Supply chain		
5.4	Non-destructive testing (NDT)		
5.5	Final assessment		
5.6	Marking		
5.7	Surface and coating		
5.7.1 5.7.2	Surface finish		
	Flange facing surfacesCondition as delivered		
5.8 5.9	Documentation		
	x A (normative) Supplementary possible steel grades for fasteners		
Anne	x B (normative) Threaded holes for pneumatic connections	18	
Anne	x C (informative) Basic configuration of the valve interface from part-turn actuator to the valve with a bracket	20	
Riblia	noranhy	23	

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.

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 12569:2020 (E)

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, 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)

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

-

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