



BSI Standards Publication

Industrial valves — Testing of metallic valves

Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements

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National foreword

This British Standard is the UK implementation of EN 12266-1:2012. It supersedes BS EN 12266-1:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/18/1, Industrial valves, steam traps, actuators and safety devices against excessive pressure - Valves - Basic standards.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Industrial valves - Testing of metallic valves - Part 1: Pressure tests, test procedures and acceptance criteria - Mandatory requirements

Robinetterie industrielle - Essais des appareils de robinetterie métalliques - Partie 1: Essais sous pression, procédures d'essai et critères d'acceptation - Prescriptions obligatoires

Industriearmaturen - Prüfung von Armaturen aus Metall - Teil 1: Druckprüfungen, Prüfverfahren und Annahmekriterien - Verbindliche Anforderungen

This European Standard was approved by CEN on 25 February 2012.

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Foreword

This document (EN 12266-1:2012) 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of an identical text or by endorsement, at the latest by October 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

This document supersedes EN 12266-1:2003.

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 (PED).

For relationship with EU Directive 97/23/EC (PED), see informative Annex ZA, which is an integral part of this document.

The main changes compared to the previous edition are:

- a) the scope was specified and editorially revised;
- b) the normative references were updated;
- c) Clause 3 Terms and definitions was revised;
- d) Clause 4 Test requirements was changed;
- e) A.1.6 Allowable pressure at room temperature was deleted;
- f) Table A.2, "Minimum test duration for shell tests" has been updated;
- g) Annex ZA was revised;
- h) Bibliography was updated.

EN 12266, *Industrial valves — Testing of metallic valves* consists of the following parts:

- *Part 1: Pressure tests, test procedures and acceptance criteria — Mandatory requirements*
- *Part 2: Tests, test procedures and acceptance criteria — Supplementary requirements*

EN 12266-1 was drawn up on the basis of International Standard ISO 5208:1993. EN 12266-2 contains supplementary testing requirements for tests, test procedures and acceptance criteria of valves.

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, Turkey and the United Kingdom.

Introduction

The purpose of this European Standard is to establish certain basic requirements for production pressure testing of industrial valves in order to ensure uniform tests and test procedures. Tests and procedures given in this European Standard may also be used, if required, for type tests and acceptance tests.

Special requirements, which are specific to one product or one performance standard only, are not included in this European Standard. Details should be included in the appropriate standard.

1 Scope

This European Standard specifies requirements for tests, test procedures and acceptance criteria for production testing of industrial valves made of metallic materials.

The specified tests may also be used as type tests or acceptance tests.

Safety devices are not covered by EN 12266-1.

When specified as a normative reference in a valve product or performance standard, this European Standard is to be considered in conjunction with given specific requirements of the valve product or performance standard. Where requirements in a product or performance standard differ from those given in this European Standard, the requirements of the product or performance standard apply.

NOTE For testing of industrial valves of thermoplastic materials, ISO 9393-1 and ISO 9393-2 apply.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 736-1:1995, *Valves — Terminology — Part 1: Definition of types of valves*

EN 736-2:1997, *Valves — Terminology — Part 2: Definition of components of valves*

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

EN 1349, *Industrial process control valves*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 736-1:1995, EN 736-2:1997, EN 736-3:2008 and the following apply.

3.1

shell test

test at a pressure in excess of the **cold working pressure** (3.7) rating of a valve for the purpose of validating the soundness and strength of the valve pressure containing and retaining structures

Note 1 to entry: These structures include valve-actuating mechanisms that have a direct connection to the valve internals subject to fluid test pressure within the valve proper.

3.2

test pressure

internal pressure (gauge), expressed in bar ¹⁾ to which the valve under testing is subjected

Note 1 to entry: Unless otherwise noted, gauge pressure is used throughout this European Standard.

3.3

test fluid

pressurized liquid or gas used to test a valve

¹ 1 bar = 10⁵ Pa.