Rörledningsarmatur – Industriventiler – Provning av ventiler –
Del 1: Tryckprovning, provningsförfaranden och acceptanskriterier – Obligatoriska krav

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

Standarden ersätter SS-ISO 5208, utgåva 1.

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

This European Standard was approved by CEN on 27 December 2002.

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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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.
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Foreword

This document (EN 12266-1:2003) 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of an identical text or by endorsement, at the latest by September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.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(s).

For relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

EN 12266 consists of two parts, which can be used separately under the general title, Industrial valves — Testing of valves:

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

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

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

Annex A forms a normative part of this part of EN 12266.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.
Introduction

The purpose of this part of EN 12266 is to establish certain basic requirements for the production pressure testing of industrial valves in order to ensure uniform tests and test procedures are adopted. The tests and procedures detailed may also be used, when required, for type tests and acceptance tests.
1 Scope

This standard specifies mandatory requirements for tests, test procedures and acceptance criteria for production testing of industrial valves.

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

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

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

3 Terms and definitions

For the purposes of this European Standard, EN 736-1, EN 736-2 and EN 736-3 and the following term and definition apply.

3.1 series-produced
design of valve which is repetitively manufactured

4 Test requirements

4.1 Every valve shall be subject to the shell strength test, reference P10, listed in Table 1, except that this test may be carried out on a statistical sampling basis provided:

a) the valve is series-produced and;
b) the nominal size of the valve is less than or equal to DN 100 (see A.1.7 for nominal sizes which do not have a DN designation) and;
c) for valves of a nominal size greater than DN 25, the allowable pressure designation shall not exceed the values in Table 2 and;
d) the body, bonnet or cover materials are not manufactured from cast steel or cast nickel alloy.

4.2 Every valve shall be subject to the shell tightness test, reference P11, listed in Table 1.

4.3 Every isolating and check valve shall be subject to the seat tightness test, reference P12, listed in Table 1.

4.4 Test procedures and acceptance criteria shall be as given in annex A.
Table 1 — Requirements for tests, test procedures and acceptance criteria

<table>
<thead>
<tr>
<th>Test Title</th>
<th>Test Reference</th>
<th>Purpose</th>
<th>Test procedure and acceptance criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shell strength a</td>
<td>P10</td>
<td>To confirm the pressure containing capability of the shell against internal pressure</td>
<td>see A.2</td>
</tr>
<tr>
<td>Shell tightness a</td>
<td>P11</td>
<td>To confirm the leak tightness of the shell including the operating mechanism sealing against internal pressure</td>
<td>see A.3</td>
</tr>
<tr>
<td>Seat tightness</td>
<td>P12</td>
<td>To confirm the capability of the seat(s) to comply with the specified leakage rate — at the time of manufacture — in the direction(s) for which the valve is designed</td>
<td>see A.4</td>
</tr>
</tbody>
</table>

a  The shell strength and shell tightness tests may be carried out at the same time when the test fluid used for the shell tightness test is a liquid.

Table 2 — Allowable pressure designation

<table>
<thead>
<tr>
<th>DN</th>
<th>PN</th>
</tr>
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<tbody>
<tr>
<td>≤ DN 25</td>
<td>All</td>
</tr>
<tr>
<td>DN 32, DN 40</td>
<td>≤ PN 25</td>
</tr>
<tr>
<td>DN 50</td>
<td>≤ PN 16 or Class 150</td>
</tr>
<tr>
<td>DN 65, DN 80, DN 100</td>
<td>≤ PN 10</td>
</tr>
</tbody>
</table>

5 Designation

Tests in accordance with this standard shall be designated by the following elements:

— title of test, test reference;

— EN 12266-1.

EXAMPLE  Shell strength, Test P10 — EN 12266-1