Valves - Materials for bodies, bonnets and covers - Part 1: Steels specified in European Standards

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1503- 1:2001 sisaldab Euroopa standardi EN 1503-1:2000 ingliskeelset teksti.	This Estonian standard EVS-EN 1503- 1:2001 consists of the English text of the European standard EN 1503-1:2000.
Käesolev dokument on jõustatud 09.03.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 09.03.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala:

This Standard lists a selection of materials for pressure containing valve bodies, bonnets and covers which are given in European Standards.

Scope:

This Standard lists a selection of materials for pressure containing valve bodies, bonnets and covers which are given in European Standards.

ICS 23.060.01, 77.140.30

Võtmesõnad: capacitive loads, compression stresses, enclosures, european standards, lids, materials, pressure, steels, steels for pressure vessels, structural steel members, upper side, valves

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 1503-1

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English version

Valves – Materials for bodies, bonnets and covers Part 1: Steels specified in European Standards

Appareils de robinetterie – Matériaux pour les corps, chapeaux et couvercles – Partie 1: Aciers spécifiés dans les normes européennes Armaturen – Werkstoffe für Gehäuse, Oberteile und Deckel – Teil 1: Stähle, die in Europäischen Normen festgelegt sind

This European Standard was approved by CEN on 2000-10-06.

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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard 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 2001, and conflicting national standards shall be withdrawn at the latest by April 2001.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

EN 1503 comprises four parts:

- Part 1 : Steels specified in European Standards ;
- Part 2: Steels other than those specified in European Standards;
- Part 3 : Cast irons specified in European Standards ;
- Part 4 : Copper alloys specified in European Standards.

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

1 Scope

This European Standard lists steels for pressure containing valve bodies, bonnets and covers which are given in European Standards.

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 incorporate in it by amendments or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

prEN 1092-1:1997, Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges.

EN 10025, Hot rolled products of non-alloy structural steels - Technical delivery conditions (includes amendment A1: 1993)

EN 10027-1, Designation systems for steels - Part 1: Steel names, principal symbols.

EN 10027-2, Designation systems for steels - Part 2: Numerical system.

EN 10028-2, Flat products made of steels for pressure purposes - Part 2: Non-alloy and alloy steels with specified elevated temperature properties.

EN 10028-3, Flat products made of steels for pressure purposes - Part 3: Weldable fine grain steels, normalized.

EN 10028-4, Flat products made of steels for pressure purposes - Part 4: Nickel alloy steels with specified low temperature properties.

EN 10028-7, Flat products made of steels for pressure purposes - Part 7: Stainless steels.

EN 10213-2, Technical delivery conditions for steel castings for pressure purposes - Part 2: Steel grades for use at room temperature and elevated temperatures.

EN 10213-3, Technical delivery conditions for steel castings for pressure purposes - Part 3: Steel grades for use at low temperatures.

EN 10213-4, Technical delivery conditions for steel castings for pressure purposes - Part 4: Austenitic and austenitic-ferritic steel grades.

EN 10222-2, Steel forgings for pressure purposes - Part 2: Ferritic and martensitic steels with elevated temperature properties.

EN 10222-3, Steel forgings for pressure purposes - Part 3: Nickel steels with specified low temperature properties.

EN 10222-4, Steel forgings for pressure purposes - Part 4: Weldeable fine grain steels with high proof strength.

EN 10222-5, Steel forgings for pressure purposes - Part 5: Austenitic, martensitic and austenitic-ferritic stainless steels.

CR 10260, Designation systems for steels - Additional symbols.

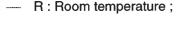
3 Materials

The materials shall be as given in Tables 1, 2 and 3. The designation of materials is given in accordance with EN 10027-1, EN 10027-2 and CR 10260.

Table 1 lists unalloyed steels, Table 2 low alloy steels and Table 3 high alloy steels.

The materials shall be used within the limits specified in the material standards. When the mechanical properties are only given for room temperature the limits of use shall be as specified in the relevant design standards (this requirement will be replaced by a reference to the European Standards about shell design strength as soon as these documents are published).

For the easy use of this standard, the materials have been divided into three temperature ranges in accordance with CR 10260:



— H : High temperature ;

L: Low temperature.