# Building valves - Manually operated copper alloy and stainless steel ball valves for potable water supply in buildings -Tests and requirements

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#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN
13828:2003 sisaldab Euroopa standardi
EN 13828:2003 ingliskeelset teksti.

Käesolev dokument on jõustatud 14.10.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13828:2003 consists of the English text of the European standard EN 13828:2003.

This document is endorsed on 14.10.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This European standard applies primarily to copper alloy ball valves, dimensions DN 8 to DN 100, for potable water supply in buildings up to PN 10 and a distribution temperature of 65 °C. Occasional excursions up to 90 °C are permitted for a period of 1 h maximum

#### Scope:

This European standard applies primarily to copper alloy ball valves, dimensions DN 8 to DN 100, for potable water supply in buildings up to PN 10 and a distribution temperature of 65 °C. Occasional excursions up to 90 °C are permitted for a period of 1 h maximum

ICS 23.060, 91.140

**Võtmesõnad:** house installat, marking, materials, mechanical properties, potable water, properties, service installations in buildings, shape, shut-off valves, specification (approval), specifications, stop valves, taps, testing, valves, water supply, water supply installations

### EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 13828

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#### **English version**

## Building valves - Manually operated copper alloy and stainless steel ball valves for potable water supply in buildings -Tests and requirements

Robinetterie de bâtiment - Robinets d'arrêt à tournant sphérique en alliage de cuivre et en acier inoxydable pour la distribution d'eau potable dans les bâtiments - Essais et caractéristiques Gebäudearmaturen - Handbetätigte Kugelhähne aus Kupferlegierungen und nicht rostenden Stählen für Trinkwasseranlagen in Gebäuden - Prüfungen und Anforderungen

This European Standard was approved by CEN on 1 August 2003.

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 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 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.



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

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#### **Foreword**

This document (EN 13828:2003) has been prepared by Technical Committee CEN/TC 164 "Water supply", 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 March 2004, and conflicting national standards shall be withdrawn at the latest by March 2004.

The requirements with regard to the drinking water quality are specified in national regulations.

This document includes a Bibliography.

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, i, ii pe Unix. France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

#### Introduction

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this standard:

- 1) this standard provides no information as to whether the product may be used without restriction in any of the member states of the EU or EFTA;
- while the use at. it should be noted that, while awaiting the adoption of the verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

#### 1 Scope

This European standard applies primarily to copper alloy ball valves, dimensions DN 8 to DN 100, for potable water supply in buildings up to PN 10 and a distribution temperature of 65 °C. Occasional excursions up to 90 °C are permitted for a period of 1 h maximum.

This standard applies also to ball valves in combination with other components in the same body.

This standard specifies:

- the requirements of the materials and the design of ball valves;
- the mechanical, hydraulic and acoustic requirements of ball valves;
- the test methods to verify the requirements of ball valves;
- the marking requirements of ball valves.

Ball valves in combination with other valves should fulfil the same requirements.

#### 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 ISO 3822-1, Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement (ISO 3822-1:1999).

EN ISO 3822-3, Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 3: Mounting and operating conditions for in-line valves and appliances (ISO 3822-3:1997).

EN ISO 6509, Corrosion of metals and alloys — Determination of dezincification resistance of brass (ISO 6509:1981).

EN ISO 6708, Pipework components — Definition and selection of DN (nominal size) (ISO 6708:1995).

ISO 65, Carbon steel tubes suitable for screwing in accordance with ISO 7-1.

#### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

#### 3.1

#### ball valves

valves in which a manually operated ball rotates about an axis at right angle to the direction of flow and in the open position, the flow passes through the ball in a straight or angled line and with a normal operating position of either fully open or fully closed. Ball valves will be opened or closed by a single turn through 90°

They ensure the complete prevention of flow in a water pipe.

The following types are covered: