EESTI STANDARD EVS-EN 1286:2001

Sanitary tapware - Low pressure mechanical mixing valves - General technical specifications

EESTI STANDARDIKESKUS

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1286:2001 sisaldab Euroopa standardi EN 1286:1999 ingliskeelset teksti.	This Estonian standard EVS-EN 1286:2001 consists of the English text of the European standard EN 1286:1999.
Standard on kinnitatud Eesti Standardikeskuse 18.06.2001 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 18.06.2001 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
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English version

Sanitary tapware

Low pressure mechanical mixing valves

General technical specification

Robinetterie sanitaire – Mitigeurs mécaniques basse pression – Spécifications techniques générales

Sanitärarmaturen – Mechanisch einstellbare Mischer für die Anwendung im Niederdruckbereich – Allgemeine technische Spezifikation

This European Standard was approved by CEN on 1999-04-01.

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CEN

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Foreword

This European Standard 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of an identical text or by endorsement, at the latest by October 1999, and conflicting national standards shall be withdrawn at the latest by October 1999.

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.

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 ;

2) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

1 Scope

This European Standard specifies requirements for low hydraulic resistance mechanical mixing valves suitable for use in low pressure water supply systems as described in informative Annex C.

This European Standard specifies :

- the dimensional, leaktightness, mechanical and hydraulic performance, mechanical endurance characteristics with which low pressure mechanical mixing valves shall comply ;

- the procedure for testing these characteristics.

It is applicable :

- to low pressure mechanical mixing valves, intended for use on sanitary appliances in washrooms (toilets, bathrooms etc.) and in kitchens ;

- to low pressure mechanical mixing valves used under the following pressure and temperature conditions given in table 1.

Table 1 - Conditions for the use of low pressure mechanical mixing valves

	Limits of use	**Recommended limits for correct operation**
Dynamic pressure	0,01 to 0,1 MPa (0,1 to 1 bar)	0,02 MPa ≤ P ≤ 0,1 MPa (0,2 bar ≤ P ≤ 1,0 bar)
Hot water temperature	T ≤ 90 °C	55 ≤ T ≤ 65 °C
Cold water temperature	T ≤ 25 °C	T ≤ 25 °C
Mechanical strength [1)]	static pressure = 1 MPa (10 bar)	
For low pressure mechanical mixing valves complying with this table there are no acoustical requirements. Low pressure mechanical mixing valves complying with this standard may also be used with inlet supply pressures in the range from 0,1 MPa to 0,2 MPa (1,0 bar to 2,0 bar) on condition that acoustical performance is not a requirement of the installation.		
[1)] Low pressure mechanical mixing valves are designed to provide sufficient mechanical strength for operation at 1 MPa (10 bar) static pressure.		

NOTE Mechanical mixing valves for use at pressures in excess than those in Table 1 are covered by EN 817.

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.

EN 31, Pedestal wash basins - Connecting dimensions.

EN 32, Wall hung wash basins - Connecting dimensions.

EN 35, Pedestal bidets over rim supply only - Connecting dimensions.

EN 36, Wall hung bidets over rim supply only - Connecting dimensions.

EN 111, Wall hung rinse basins - Connecting dimensions.

EN 232, Baths - Connecting dimensions.

EN 246, Sanitary tapware - General specifications for flow rate regulators.

EN 248, Sanitary taps - General technical specifications for electrodeposited nickel chrome coatings.

EN 695, Kitchen sinks - Connecting dimensions.

EN 817, Sanitary tapware - Mechanical mixers (PN 10) - General technical specifications.

EN 1254-2, Copper and copper alloys - Plumbing fittings - Part 2 : Fittings with compression ends for use with copper tubes.

prEN 1717, Protection against pollution of potable water in drinking water installations and general requirements of devices to prevent pollution by backflow.

ISO 228-1, Pipe threads where pressure-tight joints are not made on the threads - Part 1 : Dimensions, tolerances and designation.

ISO 5167-1:1991, Measurement of fluid flow by means of pressure differential devices - Part 1 : Orifice plates, nozzles and Venturi tubes inserted in circular cross-section conduits running full.

3 Definition

For the purposes of this Standard, the following definition applies :

3.1
mechanical mixing valve
valve which by means of a control device mixes hot and cold water between the "all cold water" position and the "all hot water" position and adjusts the flow rate of the mixture obtained between the "no flow" and "maximum flow" positions, either using the same control device or another separate control device

4 Classification

There are two types of low pressure mechanical mixing valves :

4.1 Single control mechanical mixing valves

Mechanical mixing valves with a single control device for adjusting flow rate and temperature.

4.2 Other mechanical mixing valves

Mechanical mixing valves with separate control devices for adjusting flow rate and temperature.

5 Designation

A low pressure mechanical mixing valve is designated by :

- its type (see clause 4) ;
- its nominal size (1/2 or 3/4) (see table 4), with or without diverter (see table 2) ;
- type of body (see table 2) ;
- type of nozzle (see table 2) ;