# Low Resistance Shower outlets for sanitary tapware

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# **EESTI STANDARDI EESSÕNA**

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN				
13904:2003 sisaldab Euroopa standardi				
EN 13904:2003 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 13904:2003 consists of the English text of the European standard EN 13904:2003.

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:

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# Scope:

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ICS 91.140.70

**Võtmesõnad:** compressive strength, definition, definitions, designations, dimensions, draw-off taps, marking, pedestal wash-basins, pressure drop, pressure resistance, properties, rated pressure, showerheads, showers, specification (approval), specifications, testing, valves

# EUROPEAN STANDARD NORME EUROPÉENNE

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#### **English version**

# Low resistance shower outlets for sanitary tapware

Douches basse pression pour robinetterie sanitaire

Brausen für Sanitärarmaturen mit geringem Durchflusswiderstand

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 13904:2003) 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.

Annex A is informative.

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, tung, den, S. Finland, 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.
- 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.

This European Standard specifies requirements for 'low resistance' shower outlets suitable for use in low pressure water supply systems as described in informative annex A.

Requirements for shower outlets suitable for use in high pressure water supply systems are specified in EN 1112.

# 1 Scope

This European Standard specifies:

- the dimensional, leaktightness, mechanical and hydraulic characteristics with which shower outlets shall comply;
- the procedures for testing these characteristics.

It applies to shower heads and hand showers of any material used for ablutionary purposes and intended for equipping and supplementing sanitary tapware for baths and showers. They should only be connected downstream of the obturator of the tapware.

Details of pressures and temperatures are given in Table 1.

Table 1 — Conditions of use

	Limits of use	Recommended limits for correct operations
Dynamic pressure	0,01 ≤ <i>P</i> ≤ 0 MPa	0,02 ≤ <i>P</i> ≤ 0,1 MPa
	(0,1 ≤ <i>P</i> ≤ 0 bar)	$(0,2 \le P \le 1,0 \text{ bar})$
Temperature	<i>T</i> ≤ 70 °C	<i>T</i> ≤ 42 °C

Integral and remote spray attachments incorporated in tapware (e.g. sink and basin mixer taps) are not covered by this standard.

Fittings complying with this Standard can also be used with inlet supply pressures in the range (0,1 to 0,2) MPa (1,0 to 2,0) bar in installations not subject to acoustic 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 248, Sanitary tapware - General specification for electrodeposited coatings of Ni-Cr.

EN 13905, Low resistance shower hoses for sanitary tapware.

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

# 3 Terms and definitions

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

#### 3.1

#### shower outlet

device for ablutionary purposes which allows water to be emitted in the form of jets or water droplets

#### 3.2

#### spray plates

device with orifices through which water passes and forms a spray of water with separate, definable jets or water droplets

A spray forming mechanism is a device which generates a spray by other means.

#### 3.3

# shower arm

component which supports a shower head and connects it to the water supply

### 4 Classification

### a) Shower handsets

Shower handsets are moveable hand held shower outlets which are connected to the sanitary tapware via a shower hose, complying with EN 13905 and can be hung directly on the tapware or on the wall with the aid of an appropriate support.

# b) Shower heads and body showers

Shower heads are fixed overhead shower outlets which direct water onto the user from above.

Body showers are shower outlets fixed to the vertical wall and direct water laterally onto the user.