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Sanitetsarmaturer – Tappventiler och blandare (PN 10) – Allmänna krav

Sanitary tapware – Single taps and combination taps (PN 10) – General technical specification

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Denna standard ersätter SS-EN 200, utgåva 1.

The European Standard EN 200:2004 has the status of a Swedish Standard. This document contains the official English version of EN 200:2004.

This standard supersedes the Swedish Standard SS-EN 200, edition 1.

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Supersedes EN 200:1989

English version

Sanitary tapware - Single taps and combination taps (PN 10) - General technical specification

Robinetterie sanitaire - Robinets simples et mélangeurs (PN 10) - Spécifications techniques générales

Sanitärarmaturen - Auslaufventile und Mischbatterien (PN 10) - Allgemeine technische Spezifikation

This European Standard was approved by CEN on 8 August 2004.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 200:2004) 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of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

This document supersedes EN 200:1989.

This document acknowledges the field of application of tapware used in:

— water supply systems of Type 1 (see Figure 1 and Table 1) with a pressure range of 0,05 MPa (0,5 bar) to 1,0 MPa (10 bar);

— water supply systems of Type 2 (see Figure 2 and Table 1) with a pressure range of 0,01 MPa (0.,1 bar) to 1,0 MPa (10 bar) – which combines mains-fed and cistern-fed water supply systems.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 document.

This document provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA.

It should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of these products remain in force.

1 Scope

This document specifies:

— the field of application for pillar taps, bib taps, single and multi-hole combination taps:

  — for a supply system Type 1, (see Figure 1);

  — for a supply system (Type 2, (see Figure 2);

— the dimensional, tightness, pressure resistance, hydraulic, mechanical strength, endurance and acoustic characteristics of nominal size ½ and ¾ single taps and combination taps;

— test methods to verify the characteristics.

NOTE Tests described in this document are type tests and not quality control tests carried out during manufacture.

This document applies to draw-off taps (single taps and combination taps) for use with sanitary appliances installed in rooms used for bodily hygiene (cloakrooms, bathrooms etc.) and in kitchens i.e. for use with baths, wash basins, bidets, showers and sinks.

Figure 1 shows the supply system of Type 1 with a pressure range of (0,05 to 1,0) MPa (0,5 to 10) bar.

Figure 2 shows the supply system of Type 2 with a pressure range of (0,01 to 1,0) MPa (0,1 to 10) bar.

This document applies to sanitary draw-off taps of nominal size ½ and ¾ (PN 10).

The conditions of use and classifications are given in Table 1.

It does not cover mechanical mixing valves, thermostatic mixing valves, shower accessories or taps adapted for special use (e.g. hose union taps)

Table 1 — Conditions of use/Classifications

Water Supply system	Operating range of taps		Flow rate classes	Acoustics	Marking
	Limits	**Recommended**	**See Table 10**	**See Clause 13**	**See Clause 4**
Type 1 see Figure 1	Dynamic Pressure ≥ 0,05 MPa (0,5 bar) Static Pressure ≤ 1,0 MPa (10,0 bar)	Dynamic Pressure (0,1 to 0,5) MPa (1.0 to 5,0) bar * see note b)	Z ≤ 0,15 l/s A ≤ 0,25 l/s S ≤ 0,33 l/s B ≤ 0,42 l/s C ≤ 0,50 l/s D ≤ 0,63 l/s	Group I - Group II –	for example I / A II / BC I./- [a] II./- [a]
Type 2 see Figure 2	Dynamic Pressure ≥ 0,01 MPa (0,1 bar) Static Pressure ≤ 1,0 MPa (10,0 bar)	Dynamic Pressure (0,01 to 0,2) MPa (0,1 to 2,0) bar * see note b)	See Table 8 X ≤ 0,125 l/s Y ≤ 0,250 l/s R ≤ 0,125/ 0,070 l/s	-Note c) (unclassified)	X Y R
Temperature	≤ 90 °C Lower limit: as for installation ≤ 65 °C				

[a] Without flow rate class: Taps without interchangeable outlet accessories are tested with the original outlet accessories of the manufacturer and not marked with a flow rate class.

[b] Measured at the shower outlet when incorporated.

[c] There is usually no acoustic classification for taps used in supply systems of type 2 and no specifications governing the level of noise emissions from these water installations.
If supply pressures are such that excessive noise is generated it is recommended that pressure or flow regulators are fitted in the system, or where practicable, taps conforming to the appropriate acoustic classification given in 13.3.5 are used.

NOTE If Taps are used at dynamic pressures outside the recommended operating range consideration should be given to the following characteristics:

— the force required to operate the tap and diverter;

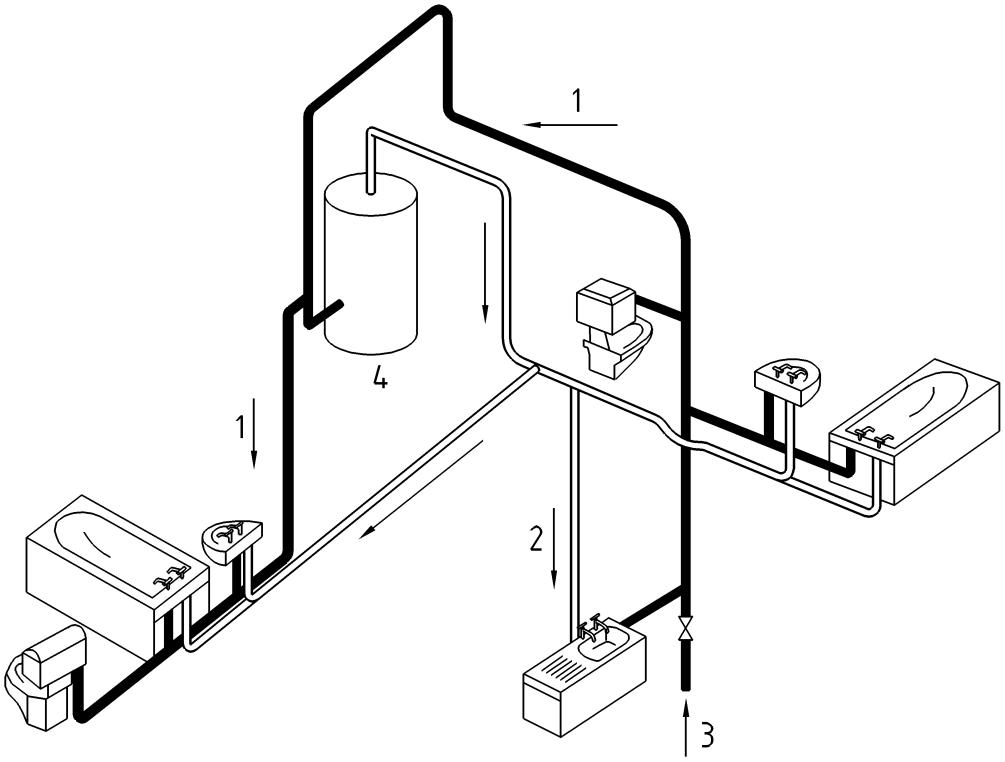
— diverter operation and flow rate;

— mechanical wear;

— acoustical performance.

Take notice of:

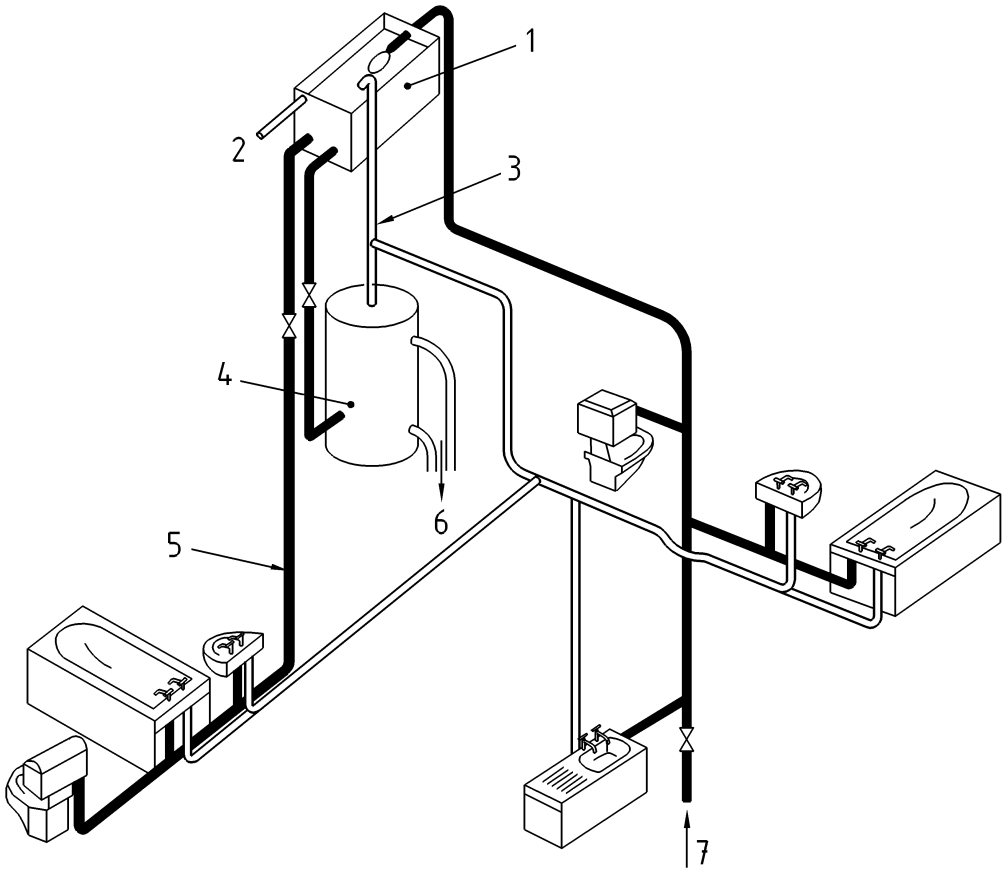
Issue	Supply system Type 1	Supply system Type 2
Operational Force	Taps for type 2 systems having rapid action mechanisms may require a higher operating force	
Diverter Operation	Taps for type 2 systems may require more operational force	Taps for type 1 systems with automatic diverters may not hold in the shower mode due to low dynamic supply pressure.
Flow Performance	Taps for type 2 systems may result in excessive flow velocities	Taps for type 1 systems may not provide an acceptable rate of flow
Noise	National regulations may require an acoustically classified Tap to be specified. Taps for type 1 and 2 systems may result in excessive noise when used above the recommended max pressure	



Key

1 Cold water
2 Hot water
3 Mains supply pipe (Supply pressures up to 10 bar)
4 Water heater

Figure 1 — Supply system type 1 - with a pressure range of (0,05 to 1,0) MPa (0,5 to 10) bar.



Key

1 Cold water storage cistern (cover omitted for clarity)
2 Warning pipe
3 Vent pipe
4 Hot water cylinder
5 Alternative cistern fed cold supply to sanitary appliances
6 To boiler
7 Mains supply pipe (Supply pressures up to 10 bar)

Figure 2 — Type 2-Supply system - with a pressure range of (0,01 to 1,0) MPa, (0,1 to 10) bar A vented domestic hot water and cold water supply system incorporating gravity hot water, mains cold water and alternative gravity cold water supply to sanitary appliances