

<b>STN</b>	<b>Zdravotnotechnické armatúry. Odnímateľné sprchovacie hadice pre zdravotnotechnické armatúry v systémoch zásobovania vodou typu 1 a typu 2. Všeobecná technická špecifikácia.</b>	<b>STN EN 16146+A1</b>
		13 7109

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/15

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Oznámením tejto normy sa ruší  
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Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

English Version

## Sanitary tapware - Extractable shower hoses for sanitary tapware for supply systems type 1 and type 2 - General technical specification

Robinetterie sanitaire - Flexibles de douchettes extractibles pour robinetterie sanitaire pour les systèmes d'alimentation en eau de types 1 et 2 - Spécifications techniques générales

Sanitärarmaturen - Ausziehbare Brauseschläuche für Sanitärarmaturen für Wasserversorgungssysteme vom Typ 1 und Typ 2 - Allgemeine technische Spezifikation

This European Standard was approved by CEN on 10 November 2012 and includes Amendment 1 approved by CEN on 9 September 2014.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

This document (EN 16146:2012+A1:2014) 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 May 2015, and conflicting national standards shall be withdrawn at the latest by May 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 9 September 2014.

This document supersedes EN 16146:2012.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 and A1.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey 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, 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.

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 applies to hoses for extractable outlets of any material intended for equipping sanitary tapware for sinks and basins. Such hoses will only be connected downstream of the obturator of the tapware. The tapware will comply with EN 200, EN 817, EN 1111, EN 1286 or EN 1287 (see [1], [2], [3], [5] and [6]).

Hoses intended to connect sanitary tapware to the water supplies are not covered by this standard.

This European Standard specifies:

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

Details of pressures and temperatures are given in Table 1.

**A1**

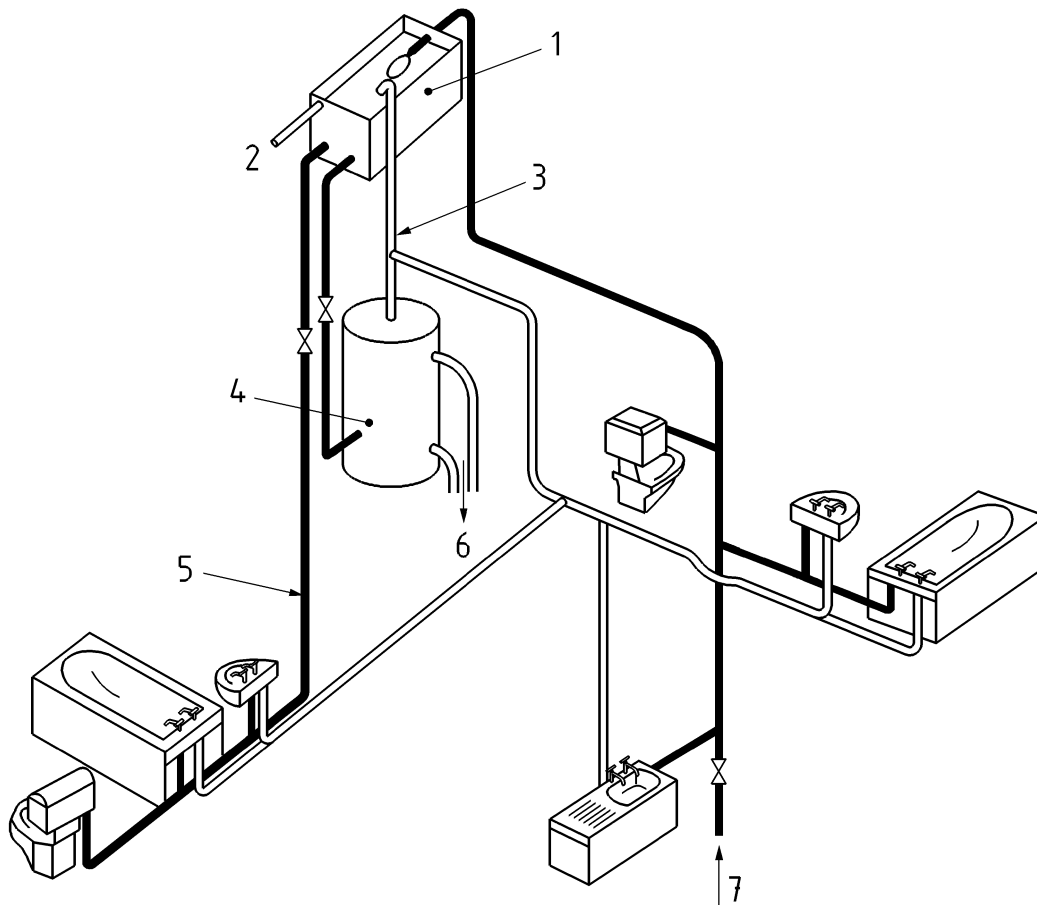
**Table 1 — Conditions of use/Classifications**

Water supply system	Operating range of hoses for extractable outlets		Flow rates ( $Q$ ) <sup>a</sup>
	Limits	Recommended	
Type 1 see Figure 1	<u>Dynamic Pressure</u> $0,05 \text{ MPa} \leq P \leq 0,5 \text{ MPa}$ (0,5 bar $\leq P \leq$ 5 bar)	<u>Dynamic Pressure</u> $0,1 \text{ MPa}$ to $0,3 \text{ MPa}$ (1,0 bar to 3,0 bar)	Class 1: $Q \geq 0,25 \text{ l/s}$ (15 l/min)
			Class 2: $Q \geq 0,15 \text{ l/s}$ (9 l/min)
Type 2 see Figure 2	<u>Dynamic Pressure</u> $0,01 \text{ MPa}$ to $0,2 \text{ MPa}$ (0,1 bar to 2,0 bar)	<u>Dynamic Pressure</u> $0,02 \text{ MPa}$ to $0,10 \text{ MPa}$ (0,2 bar to 1,0 bar)	Class E: $0,06 \text{ l/s} < Q < 0,18 \text{ l/s}$ (3,6 l/min $< Q <$ 10,8 l/min.)
			Class H: $0,18 \text{ l/s} \leq Q$ (10,8 l/min $\leq Q$ )
Temperature	$T \leq 70^\circ\text{C}$	$T \leq 60^\circ\text{C}$	
<sup>a</sup> See details in Table 3.			

**A1**





**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 1,0 MPa (10 bar))

**Figure 2 — Type 2-Supply system - with a pressure range of 0,01 MPa to 1,0 MPa, (0,1 bar 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**

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 248, *Sanitary tapware — General specification for electrodeposited coatings of Ni-Cr*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1)*

**konec náhľadu – text ďalej pokračuje v platenej verzii STN**