SLOVENSKI STANDARD
SIST EN 12764:2015

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SIST EN 12764:2005+A1:2008

Sanitarna oprema - Zahteve za masažne kadi

Sanitary appliances - Specification for whirlpool baths

Sanitärausstattungsgegenstände - Anforderungen an Whirlwannen

Appareils sanitaires - Spécification relative aux baignoires avec système de brassage d'eau

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English Version

Sanitary appliances - Specification for whirlpool baths

Appareils sanitaires - Spécification relative aux baignoires avec système de brassage d'eau

Sanitärausstattungsgegenstände - Anforderungen an Whirlwannen

This European Standard was approved by CEN on 28 May 2015.

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

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Foreword

This document (EN 12764:2015) has been prepared by Technical Committee CEN/TC 163 “Sanitary appliances”, the secretariat of which is held by UNI.

This document supersedes EN 12764:2004+A1:2008.

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of an identical text or by endorsement, at the latest by January 2016, and conflicting national standards shall be withdrawn at the latest by April 2017.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the EU Construction Products Regulation.

For relationship with EU Construction Products Regulation, see informative Annex ZA, which is an integral part of this document.

There are no technical changes from the previous edition. The only change is that Annex ZA has been completely replaced in the new style.

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.

1 Scope

This European Standard specifies requirements for whirlpool baths, having a rated voltage of not more than 250 V for single phase appliances and 480 V for other appliances, which are intended to be installed in indoor domestic situations and used in accordance with the manufacturer's instructions for personal hygiene. Such whirlpool baths are tested and supplied as a complete independent unit designed to be drained down after every use. They may be transported in several separate parts, for assembly on site, to facilitate delivery.

Safety aspects of Whirlpool baths (except use by young children and slow moving/weak elderly or disabled individuals) are covered by EN 60335-2-60.

Exclusions: this standard does not cover additional requirements for whirlpool baths intended for uses where specific medical provisions are required, or whirlpool baths for communal uses where they are not drained down after every use. Portable whirlpool devices are not covered by this standard.

For the purposes of this standard the term 'domestic situations' includes use in hotels, accommodation for students, hospitals and similar buildings.

Warning: Slow moving elderly or disabled persons should take care when using whirlpool baths. Young children should not be allowed to use whirlpool baths without supervision.

NOTE 1 It is unrealistic to expect manufacturers to provide a definition of what constitutes a 'slow moving elderly or disabled person', or 'young children'. The former is the responsibility of the individual or a carer. The latter is a parental responsibility.

NOTE 2 When EN 60335–2-60 is amended to cover use of whirlpool baths by slow moving elderly or disabled persons and young children the warning given above will be deleted from this standard.

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 232, *Baths - Connecting dimensions*

EN 1717, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

EN 14516, *Baths for domestic purposes*

EN 60335-2-60, *Household and similar electrical appliances - Safety - Part 2-60: Particular requirements for whirlpool baths and whirlpool spas (IEC 60335-2-60)*

3 Terms and definitions

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

3.1
whirlpool bath
completely assembled unit comprising of a bath, a water and/or air agitating device and associated electrical installation

3.2
overflow level
level at which water in the bath will start to flow through any overflow pipe

4 Design

4.1 Construction

The whirlpool bath shall form a fully integrated unit permanently installed in accordance with the manufacturer's instructions, such that it is possible to carry out the commissioning test described in Annex A without the need to install additional parts or components.

Element parts, e.g. pump or blower, may be installed remotely from the bath.

NOTE Portable whirlpool devices are not covered by this specification (see Clause 1).

4.2 Pump and/or blower installation

The weight of the pump and/or blower shall not be supported by any part of the system pipe-work.

4.3 Unit maintenance

The whirlpool bath shall be designed such that after installation in accordance with the manufacturer's instructions, all elements of the unit requiring regular maintenance (e.g. pump, blower, valves, electrical components) remain accessible.

4.4 Backflow prevention

A whirlpool bath intended to be filled by direct connection of its circulatory pipe-work to the water supplies shall be supplied with appropriate backflow prevention devices for installation at the point of connection in accordance with EN 1717.

4.5 Safety

Whirlpool baths need to comply with the requirements of the Low Voltage Directive 2006/95/EC. Compliance with EN 60335-2-60 is one way of satisfying this rule.

5 Requirements

5.1 General

Whirlpool baths shall comply with the requirements in EN 232 unless the manufacturer provides a special waste and/or suction/overflow fitting, and they shall be subjected to the sequence of tests specified in 5.2 to 5.6.

Where a European Standard exists for the performance of baths manufactured from specific materials, whirlpool baths made from such materials shall also comply with the requirements of that standard.

5.2 Resistance to temperature

When tested in accordance with 6.1 there shall be no leakage or other damage.

When those parts of whirlpool baths which are intended by the manufacturer to function at temperatures in excess of 60°C are tested in accordance with 6.1 at those higher temperatures, there shall be no leakage or other damage.

5.3 Resistance to hair entrapment

Whirlpool baths shall comply with the relevant clause of EN 60335-2-60.

5.4 Hygiene

5.4.1 Water retention

Whirlpool baths shall comply with the relevant clause of EN 60335-2-60.

5.4.2 Cleanability

Whirlpool baths shall comply with the relevant clause of EN 14516.

5.4.3 Durability of cleanability

Whirlpool baths shall comply with the relevant clause of EN 14516.

5.5 Resistance to pressure

When tested in accordance with 6.2, there shall be no leakage or other damage.

5.6 Resistance to leakage

When tested in accordance with 6.3, there shall be no leakage or other damage.

5.7 Dangerous substances

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction website on EUROPA accessed through: http://ec.europa.eu/growth/tools-databases/cp-ds/index_en.htm.

6 Test method

6.1 Temperature test

6.1.1 Apparatus

6.1.1.1 A supply of water at 60 $^{0}_{-5}$ °C or at a higher temperature if specified by the manufacturer.

6.1.1.2 A temperature measuring device accurate to within 1°C at the measured value.

6.1.2 Test specimen

A whirlpool bath, completely assembled and connected to a power source in accordance with the manufacturer's instructions, in a controlled environment at a temperature > 15°C.

6.1.3 Procedure

— With the rim of the bath level, fill the bath to the overflow level with water at an entry temperature of 60 $^{0}_{-5}$ °C or at a higher temperature if specified by the manufacturer.

— Switch the whirlpool system on.

— Open all air controls and operate the system for a period of 10 $^{+1}_{0}$ min.

— Visually inspect all pipes, joints and fittings.

— Switch the whirlpool system off.

6.1.4 Expression of results

Record any water leakage or other damage.

6.2 Maximum pressure test

6.2.1 Apparatus

6.2.1.1 A pressure gauge capable of reading pressure to an accuracy of within 2 % of the measured value.

6.2.1.2 A supply of water at 45 $^{0}_{-5}$ °C.

6.2.2 Test specimen

A whirlpool bath completely assembled and connected to a power source in accordance with the manufacturer's instructions and previously tested in accordance with 6.1.

6.2.3 Procedure

— With all nozzle outlets open and rim of the bath level, fill the bath with water at an entry temperature of 45 $^{0}_{-5}$ °C to a level above the highest jet which allows operation of the whirlpool system.

— Connect the pressure gauge into the delivery side of the pipe system.

— Switch the whirlpool system on.

— Block each nozzle outlet into the bath until all are closed, recording the pressure gauge reading after each closure.

— Record the maximum operating pressure and drain the bath.

— Re-fill the bath with water at an entry temperature of 45 $^{0}_{-5}$ °C and re-create the maximum operating pressure. Run the system for period of 10 $^{+1}_{0}$ min.

— Visually inspect all pipes, joints and fittings during and after the test.

— Switch the whirlpool system off.

6.2.4 Expression of results

Record any water leakage or other damage.

6.3 Leakage test

6.3.1 Apparatus

A supply of water.

6.3.2 Test specimen

A whirlpool bath, completely assembled and connected to a power source in accordance with the manufacturer's instructions and previously tested in accordance with 6.1 and 6.2.

6.3.3 Procedure

— With the rim of the bath level, fill the bath with water to a level above the highest nozzle which allows operation of the system.

— Operate all the functions of the whirlpool system and run the system for a period of 10^{+5}_{0} min.

— Switch the whirlpool system off and without draining down leave for a period of 10^{+5}_{0} min.

— Visually inspect all pipes, joints and fittings during and after the test.

6.3.4 Expression of results

Record any water leakage or other damage.

7 Marking, labelling and packaging

7.1 Marking and product designation

The relevant product characteristics and the Essential Characteristics for whirlpool baths including their abbreviations are given in Table 1.

Table 1 — Characteristics and abbreviations

Abbreviation	Characteristics
EN 12764	Number of European Standard for whirlpool baths
HE	Safety against hair entrapment
CA	Cleanability
DA	Durability

All whirlpool baths shall be designated in accordance with the following system: