



SLOVENSKI STANDARD

SIST EN 14623:2005

01-september-2005

Naprave za varovanje pred onesnaženjem pitne vode zaradi povratnega toka - Prosti iztok z najmanjšim prelivom krožne oblike (preverjeno s preskusom ali meritvijo) – Družina A, tip G

Devices to prevent pollution by backflow of potable water - Air gaps with minimum circular overflow (verified by test or measurement) - Family A, type G

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Sicherungseinrichtungen zum Schutz des Trinkwassers gegen Verschmutzung durch Rückfließen - Freier Auslauf mit kreisförmigem Überlauf mit Mindestdurchmesser (Nachweis durch Prüfung oder Messung) - Familie A, Typ G

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Dispositifs de protection contre la pollution de l'eau potable par retour - Surverse avec trop-plein (définie par essai de dépression) - Famille A, type G

Ta slovenski standard je istoveten z: EN 14623:2005

ICS:

13.060.20	Pitna voda	Drinking water
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

SIST EN 14623:2005

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14623

May 2005

ICS 13.060.20; 91.140.60

English version

Devices to prevent pollution by backflow of potable water - Air gaps with minimum circular overflow (verified by test or measurement) - Family A, type G

Dispositifs de protection contre la pollution de l'eau potable par retour - Surverse avec trop plein (définie par essai de dépression) - Famille A, type G

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This European Standard was approved by CEN on 25 March 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

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Foreword

This European Standard (EN 14623:2005) 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 November 2005, and conflicting national standards shall be withdrawn at the latest by November 2005.

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 United Kingdom.

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EN 14623:2005 (E)**Introduction**

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this European Standard:

- a) this European Standard provides no information as to whether the produce may be used without restriction in any of the Member state of the EU or EFTA;
- b) 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.

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1 Scope

This European Standard specifies the characteristics and the requirements of air gaps with overflow, family A, type G for nominal flow velocity not exceeding 3 m/s. Air gaps are devices for protection of potable water in water installations from pollution. This European Standard applies to air gaps in factory assembled products and to constructed air gaps in situ, and defines the physicochemical characteristics of materials of construction used for the purpose and application to ensure compliance with this document during normal working use.

2 Normative references

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

EN 1717:2000, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions of EN 1717:2000 and the following apply.

3.1

air gap with overflow family A, type G

permanent and vertical distance between the lowest point of the feed orifice and the critical water level having an overflow capable of draining the maximum inflow of water under fault condition

NOTE See Figure 1 for the design principle.

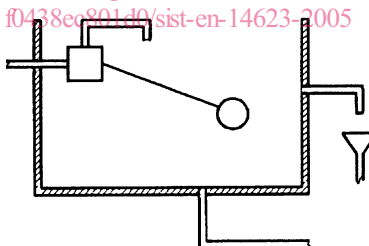


Figure 1 — Design principle

3.2

spillover level

level at which water will start to overflow the receiving vessel with all outlets closed

3.3

critical water level

physical or piezometric level of liquid reached in any part of the appliance 2 s after closing the water inlet starting from the maximum fault level

3.4

dimension 'h'

height between the spillover level and the critical level

3.5

maximum operational level

in an open system the level that will be reached in normal operation (as defined by the manufacturer)

EN 14623:2005 (E)**3.6****maximum level**

highest water level '*H*' reached above the spillover level under positive pressure fault condition with all outlets closed

3.7**splashing (requirements for protection)**

when maintaining the maximum flow rate at the maximum level if a contact is observed between the upstream component and the liquid in the receiving vessel due to splashing, foaming or turbulence, the air gap shall be increased to a point where no contact is observed

3.8**diameter of feed pipe (Bore '*D*')**

diameter '*D*' is the maximum internal diameter within the last metre of the supply pipe or the DN of the inlet connection

4 Designation

An air gap with overflow family A, type G is designated by:

- name;
- reference to this European Standard;
- denomination (see 3.8 DN or *D*);
- family and type.

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Example for a designation of an air gap with minimum circular overflow (verified by test or measurement) Family A (A), type G (G), DN 15
<https://standards.iteh.ai/catalog/standards/sist/5440ce-915b-48c2-9263-f0438ec801d0/sist-en-14623-2005>

Air gap, EN 14623, Family A, Type G, DN 15

5 Symbolization

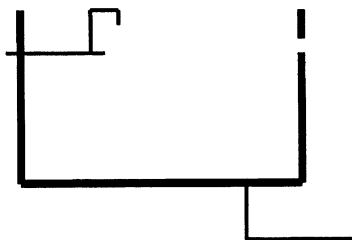


Figure 2 — Graphic symbol

6 Materials

The manufacturer shall state the type of materials chosen in his technical and commercial documents.

The materials used in water installations, including the materials of protection units in contact with drinking water, shall satisfy the European standards and national acceptance criteria and/or national restrictions for use currently in force in EU and EFTA.

They shall be compatible with each other, with the water supplied and with the fluids or substances that can come into contact with them.

There are no special requirements concerning the materials downstream of the atmospheric outlet opening provided they do not have any harmful effect on the upstream part.

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7 Requirements

7.1 General

The protection assembly comprises four parts:

- water inlet device;
- receiving vessel (container);
- overflow;
- air break to drain.

7.2 Water inlet device

Every feed pipe, float-operated valve or other device which controls the inflow of water to a receiving vessel shall be securely and rigidly fixed to maintain air gap.

The outlet of the inlet device shall not come into contact in any way with a product from downstream, and will always be above the maximum level 'H' (see Figure 3).

Adjustable or dismantlable joints are not permitted below the maximum operational level. Submerged supply pipes shall be made from corrosion resistant materials and be pressure tested as part of the inlet device.