

SLOVENSKI STANDARD

SIST EN 1567:2000

01-november-2000

Ventili v stavbah - Reducirni in kombinirani reducirni ventili - Zahteve in preskusi

Building valves - Water pressure reducing valves and combination water pressure reducing valves - Requirements and tests

Gebäudearmaturen - Druckminderer und Druckmindererkombinationen für Wasser - Anforderungen und Prüfungen

Robinetterie de bâtiment - Réducteurs de pression d'eau et réducteurs de pression d'eau combinés - Exigences et essais

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Ta slovenski standard je istoveten z: **EN 1567:1999**

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ICS:

23.060.40	V æ } æ^* ~ æ lã	Pressure regulators
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1567

October 1999

ICS 23.060.40; 91.140.60

English version

Building valves - Water pressure reducing valves and
combination water pressure reducing valves - Requirements and
tests

Robinetterie de bâtiment - Réducteurs de pression d'eau et
réducteurs de pression d'eau combinés - Exigences et
essais

Gebäudearmaturen - Druckminderer und
Druckmindererkombinationen für Wasser - Anforderungen
und Prüfungen

This European Standard was approved by CEN on 5 September 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard 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 April 2000, and conflicting national standards shall be withdrawn at the latest by April 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.



Introduction

In respect of potential adverse effect 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 the verifiable European criteria, existing national regulation concerning the use and or the characteristics of this product remain in force.

1 Scope

This European Standard specifies, dimensions, materials and performance requirements (including methods of test) for Water Pressure Reducing Valves and Combination Pressure Reducing Valves, of nominal size from DN 8 to DN 100, for inlet pressures that do not exceed 1,6 MPa (16 bar) and a temperature that does not exceed 30 °C for cold water application and 80 °C for hot water application. Except when stated otherwise by the manufacturer, the valves can be mounted in any orientation.

NOTE: The use of the device specified in this standard does not override the need to use hydraulic safety devices to prevent over pressurisation.

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.

EN 1254-2

Copper and copper alloys – Plumbing fittings – Part 2: Fittings with compression ends for use with copper tubes

EN 1561

Founding – Grey cast irons

EN 1563

Founding – Spheroidal graphite cast irons

EN 1982

Copper and copper alloys – Ingots and castings

EN 10213-2

Technical delivery conditions for steel castings for pressure purposes - Part 2: Steel grades for use at room temperature and elevated temperatures

EN 12420

Copper and copper alloys – Forgings

EN ISO 3822-1

Acoustics: Laboratory tests on noise emission from appliances and equipment used in water supply installations – Part 1: Method of measurement (ISO 3822-1 : 1999)

EN ISO 3822-3

Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 3: Mounting and operating conditions for in-line valves and appliances.

EN ISO 6509

Corrosion of metals and alloys – Determination of dezincification resistance of brass (ISO 6509 : 1981)

ISO 7-1

Pipe threads where pressure-tight joints are made on the threads – Part 1: Dimensions, tolerances and designation

ISO 228-1

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

ISO 7005-3 : 1988

Metallic flanges – Part 3: Copper alloy and composite flanges

3 Definitions

For the purposes of this standard the following definitions apply:

3.1 Water pressure reducing valve

A valve that reduces the pressure of a fluid at the outlet to an adjustable or preset value.

3.2 Combination water pressure reducing valve

A water pressure reducing valve with additional functions (e.g. stop valve and check valve) contained within the same body.

4 Classification of the Water pressure reducing valves and Combination water pressure reducing valves

A valve is classified by:

- valve form
- nominal size (DN)
- end connections
- adjustment
- range of temperature

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4.1 Valve form

- Water pressure reducing valves
- Combination water pressure reducing valves

4.2 Nominal diameter (DN)

The nominal diameter (DN) is declared by the manufacturer. Each nominal diameter (DN) corresponds to the nominal flow rates in table 5.

The inlet connection of the valve is DN or one size larger or one size smaller than the nominal size (DN).

In the case of flange connections the nominal size (DN) shall be determined by the DN of the inlet connection.

4.3 End Connections

Examples of end connections are shown in table 1. Combinations of two kinds of connections are possible.

4.4 Adjustment

Two types are specified:

- adjustable pressure reducing valves
- non-adjustable pressure reducing valves

4.5 Temperature Range

- cold water up to 30 °C maximum
- warm water up to 80 °C maximum

5 Designation

A valve is designated by:

- valve form
- nominal size (DN)
- end connections types and sizes
- adjustment, adjustable/non-adjustable
- outlet set pressure for non adjustable valves
- temperature range
- valve body material and surface finish
- acoustic group
- the number of this standard EN 1567

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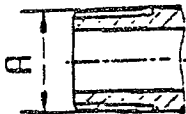
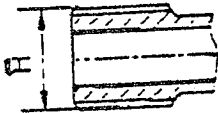
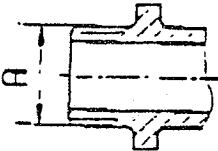
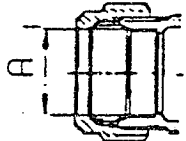
Designation examples:

EXAMPLE 1: Water pressure reducing valves, DN 20, inlet $R_p \frac{3}{4}$ " female thread, outlet $R \frac{3}{4}$ ", male union according to ISO 7-1, non-adjustable, outlet pressure 3 bar, body of bronze, cast finish, for water up to 80 °C maximum, acoustic group II – EN 1567.

EXAMPLE 2: Combination water pressure reducing valve with stop valve, DN 25, with $R1$ " male union on both inlet and outlet connection, according to ISO 7-1, adjustable, body of brass, cast finish, for water up to 30 °C maximum, acoustic group I – EN 1567.

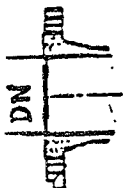
EXAMPLE 3: Water pressure reducing valve, DN 80, with flanges according to ISO 7005-3, adjustable, body of cast iron, powder coated, for water up to 30 °C maximum – EN 1567.

Table 1: Example of end connections

Type		DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
 ISO 7-1	A	Rp 3/8	Rp 1/2	Rp 3/4	Rp 1	Rp 1 1/4	Rp 1 1/2	Rp 2	Rp 2 1/2	Rp 3	Rp 4
 ISO 7-1	A	R 3/8	R 1/2	R 3/4	R 1	R 1 1/4	R 1 1/2	R 2	R 2 1/2	R 3	R 4
 ISO 228-1	A	G 1/2 B	G 3/4 B	G 1 B	G 1 1/4 B	G 1 1/2 B	G 2 B	G 2 1/2 B	-	-	-
 ISO 228-1	A	G 3/8 B	G 1/2 B	G 3/4 B	G 1 B	G 1 1/4 B	G 2 B	G 2 1/2 B	-	-	-
 EN 1254-2	A	12	15/18 14 16	22	28	35	42	54	76,1	88,9	-

(continued)

Table 1: (concluded)

Type		DN 10	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
	DN	—	15	20	25	32	40	50	65	80	100

ISO 7005-3 : 1988

6 Materials

6.1 Chemical and hygienic behaviour of materials

The selection of materials is the responsibility of the manufacturer, provided the complete valve satisfies the requirements of this standard. The materials and coatings used shall not contaminate or change the drinking water, when in normal or accidental contact up to a temperature of 90 °C.

The requirements, with regard to the drinking water quality, are specified in national regulations.

The manufacturer shall state in his technical and sales literature what materials and coatings are used. The materials, in particular copper alloys, for which recommendations or international standards exist, shall comply with them. These references shall be stated.

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6.2 Nature of Materials

6.2.1 Copper Alloys

Examples are given in table 2.

Table 2: Examples of copper alloys

Material designation	Material Number	EN-Standard
CuSn10-C	CC 480 K	EN 1982
CuZn39Pb3	CW 614 N	EN 12420
CuZn40Pb2As	CW 617 N	EN 12420
CuSn5PbZn5-C	CC 491 K	EN 1982
CuSn3Pb5Zn8-C	CC 490 K	EN 1982

Copper-zinc alloys containing more than 10 % zinc are subject to dezincification when submitted to water capable of dezincification. In the countries where the use of products made of dezincification resistant materials is required, the products have to guarantee a dezincification depth less than 200 µm in any direction, they have to be tested in accordance with the standard EN ISO 6509 and have to be marked in compliance with the indications under section "MARKING" (point 9).