

Ročne krogelne pipe in zasuni za hišne plinske napeljave - Dopolnilo A1

Manually operated ball valves and closed bottom taper plug valves for gas installations for buildings – Amendment A1

ICS

English version

Manually operated ball valves and closed bottom taper plug valves for gas installations for buildings

Robinets à tournant sphérique et robinets à tournant conique à fond plat destinés à être manoeuvrés manuellement et à être utilisés pour les installations de gaz dans les bâtiments

Handbetätigte Kugelhähne und Kegelhähne mit geschlossenem Boden für die Gas-Hausinstallation

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 236.

This draft amendment A1, if approved, will modify the European Standard EN 331:1998. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Foreword

This document (EN 331:1998/prA1:2005) has been prepared by Technical Committee CEN/TC 236 “Non industrial manually operated shut-off valves for gas and particular combinations valves-other products”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

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 EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

General

In the whole text of EN 331:1998 replace:

- "closure member" *with* "obturator",
- "union connection" *with* "joint",
- "flexible connection" *with* "flexible appliance connector",
- "flow restrictor" *with* "pressure limiting device".

Modify the clause numbering in relation to the modifications listed hereafter and correct the cross references in text accordingly:

| Old numbering | New numbering | Old numbering | New numbering |
|---------------|---------------|---------------|---------------|
| 5.1.1 | 5.1 | 5.1.3.1.1 | 5.3.1.1 |
| 5.1.1.1 | 5.1.1 | 5.1.3.1.2 | 5.3.1.2 |
| 5.1.1.2 | 5.1.2 | 5.1.3.1.3 | 5.3.1.3 |
| 5.1.1.3 | 5.1.3 | 5.1.3.2 | 5.3.2 |
| 5.1.1.4 | 5.1.4 | 5.1.3.3 | 5.3.3 |
| 5.1.1.5 | 5.1.5 | 5.1.3.4 | 5.3.4 |
| 5.1.1.6 | 5.1.6 | 5.1.3.5 | 5.3.5 |
| 5.1.1.7 | 5.1.7 | 5.1.3.6 | 5.3.6 |
| 5.1.1.8 | 5.1.9 | 5.1.3.7 | 5.3.7 |
| 5.1.2 | 5.2 | 5.1.4 | 5.4 |
| 5.1.2.1 | 5.2.1 | 5.2 | 5.5 |
| 5.1.2.2 | 5.2.2 | 5.2.1 | 5.5.1 |
| 5.1.2.3 | 5.2.3 | 5.2.2 | 5.5.2 |
| 5.1.2.4 | 5.2.4 | 5.3 | 5.6 |
| 5.1.2.5 | 5.2.5 | 5.4 | 5.7 |
| 5.1.2.6 | 5.2.6 | 6.6 | 6.7 |
| 5.1.2.6.1 | 5.2.6.1 | 6.6.1 | 6.7.1 |
| 5.1.2.6.2 | 5.2.6.2 | 6.6.2 | 6.7.2 |
| 5.1.2.7 | 5.2.7 | 6.7 | 6.8 |
| 5.1.3 | 5.3 | 7.6.4 | 7.6.3 |
| 5.1.3.1 | 5.3.1 | 7.6.5 | 7.6.4 |

Modifications to the text of EN 331:1998.

1 Scope

Replace the second paragraph of clause 1.1 with the following:

"It applies to metallic valves for domestic and commercial not directly buried installations inside or outside of buildings, using gases of the first, second and third family (specified in EN 437) and working up to $0,2 \times 10^5$ Pa, $0,5 \times 10^5$ Pa and 5×10^5 Pa."

2 Normative references

Add the references to the following standards in the appropriate order:

"EN 682, *Elastomeric Seals - Materials requirements for seals used in pipes and fittings carrying gas and hydrocarbon fluids.*

EN 751-1, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water - Part 1: Anaerobic jointing compounds.*

EN 1092-1, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges.*

EN 1092-2, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2: Cast iron flanges.*

EN 1092-3, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 3: Copper alloy flanges."*

"EN 1503-1, *Valves - Materials for bodies, bonnets and covers - Part 1: Steels specified in European Standards.*

EN 1593:1999, *Non-destructive testing - Leak testing - Bubble emission techniques.*

EN 1775, *Gas supply - Gas pipework for buildings - Maximum operating pressure < 5 bar - Functional recommendations.*

EN 12627, *Industrial valves - Butt welding ends for steel valves .*

EN 60730-1, *Automatic electrical controls for household and similar use - Part 1: General requirements.*

EN ISO 6708, *Pipework components - Definition and selection of DN (nominal size)."*

"ISO 9227:1991, *Corrosion test in artificial atmospheres – Salt spray tests.*"

Delete the reference to ISO 228 and replace it with "EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*".

Delete the references to ISO 261 and ISO 7005.

Replace "prEN 1254" with "EN 1254".

3 Definitions

Replace the term "3.3.1 closure member" with "3.3.1 obturator".

Replace term "3.3.4 compression joint" and the relevant definition with the following:

"3.3.4

mechanical joint

joint in which gas tightness is achieved by compression with or without a seal

NOTE This joint can be easily disassembled and reassembled."

Replace terms "3.3.6 union connection" and "3.3.7 flexible connection" and the relevant definitions with the following:

"3.3.6

joint

means of joining elements of a gas installation

3.3.7

flexible appliance connector

fitting of flexible pipework to be fitted between the end of fixed pipework and the appliance inlet connection"

Modify the definition of 3.5.3 as follows: "maximum pressure at which a valve can be operated continuously under normal operating conditions".

Add the following term and definition:

"3.10

DN (nominal size)

see EN ISO 6708"

4 Classification

Replace Table 1 in 4.1 with the following table:

Table 1 — Valve pressure classes

| Class | Pressure range | Remark |
|---|-------------------------------|--------------------------------|
| MOP 0,2 | 0 to 0,2 x 10 ⁵ Pa | MOP = 0,2 x 10 ⁵ Pa |
| MOP 0,5 | 0 to 0,5 x 10 ⁵ Pa | MOP = 0,5 x 10 ⁵ Pa |
| MOP 5 | 0 to 5 x 10 ⁵ Pa | MOP = 5 x 10 ⁵ Pa |
| NOTE In some countries, national regulations require a special pressure (20 bar) for valves used with third family gas. For those valves, "20" will be added to the class reference (for example MOP 5-20). | | |

5 Construction requirements

Delete the title "5.1 General" and renumber the subclauses in 5 as indicated in the table in General on page 4 of this Amendment 1.

Replace 5.1.1.1 with what follows:

"5.1.1 Any part in contact with the gas or the surrounding atmosphere, shall be manufactured from corrosion-resistant materials or shall be suitably protected against corrosion.

The corrosion protection for springs and other moving parts shall not be impaired by any movement."

Replace 5.1.1.3, 5.1.1.4, 5.1.1.5 and 5.1.1.6 with what follows:

"5.1.3 Material indicated in 5.1.9, b) and c), excluding a), shall be tested in accordance with 7.6.3 (salt spray resistance).

Once the test has been run, no corrosion shall be revealed by visual examination that could impair the device's operation (disregarding possible salt deposits), and the external tightness of the device (connected and disconnected) remains in conformity with the requirement defined in 6.2 (leak-tightness).

5.1.4 Springs and other moving parts manufactured from non-corrosion-resistant materials shall be suitably protected against corrosion and shall retain their protective coating despite any movement resulting from the operation of the valve. After the test of 7.6 these parts shall withstand the test of 7.6.3.

5.1.5 All markings shall be clearly legible, durable and resistant to atmospheric conditions. Labels and their markings shall neither deteriorate nor lift nor become unreadable by humidity and temperature. Self-adhesive labels shall be tested according to Annex A of EN 60730-1.

5.1.6 Rubber materials shall conform to EN 549 or EN 682.

Until a specific European standard becomes available, other non-metallic materials for seals (e.g. synthetic fibers, graphite) shall conform to the requirements of those countries in which the valve will be used."

Add the following new subclause:

"5.1.8 Anaerobic jointing compounds shall conform to EN 751-1."

Replace 5.1.1.8 with what follows:

"5.1.9 The shell, obturator and stem shall be made in one of the following materials:

- a) copper alloy excluding Aluminium-bronze¹⁾
- b) ductile cast iron excluding laminar cast iron²⁾
- c) forged steel and cast steel³⁾."

Modify footnote ³⁾ as follows: "³⁾ On this subject EN 1503-1 is available."

Replace 5.1.2.2 with what follows:

"5.2.2 Product appearance

All valve components, when viewed with the naked eye, shall be free from sharp edges and corners which could cause damage, injury or incorrect operation."

Replace 5.1.2.3 with what follows:

"5.2.3 Valve maintenance

All valves have to be designed to be maintenance free."

Replace the title of "5.1.3 Connections" with "5.3 Joints" and renumber the subclauses in the former 5.1.3 as indicated in the table in General on page 4 of this Amendment 1.

Replace 5.1.3.1.2 with what follows:

"5.3.1.2 Where pressure-tight joints are not made on the threads according to ISO 7, they shall comply with EN ISO 228-1."

Change the title of "5.1.3.2 Flanges" to "5.3.2 Bolted flange joint".

In the first paragraph of the old 5.1.3.2 (new 5.3.2) replace "ISO 7005" with "EN 1092-1, EN 1092-2 and prEN 1092-3".

Both in the title and in the text of the old 5.1.3.3 (new 5.3.3) replace "capillary joints" with "capillary brazed joints".

At the beginning of the old 5.1.3.6 (new 5.3.6) add:

"Butt welding ends shall comply with EN 12627, for steel valves. For other materials, while ..."

Add the following new subclause and the relevant footnote ⁴⁾:

"5.3.7 Valves with polyethylene joints

Polyethylene joints shall be in accordance with the relevant European Standard⁴⁾."

Replace 5.1.4 with what follows:

"5.4 Seals

Sealing on the obturator shall be constructed so that tightness is achieved by mechanical means. This excludes the use for this purpose of all sealing materials such as liquids, pastes and tapes.

The tightness between the different parts of the body will be assured by mechanically means. Additional products, like glues, pastes, tapes, split pins, may be used in order to preserve the mechanical tightness."

Replace 5.3 with what follows:

⁴⁾ At the moment the matter is being treated in EN 1775:1998/A1:2000.