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Building valves - Expansion groups - Tests and requirements

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

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Expansionswasser - Prüfungen und Anforderungen

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EN 1488:2021 (E)**European foreword**

This document (EN 1488:2021) 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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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

This document supersedes EN 1488:2000.

In comparison with the previous edition, the following technical modifications have been made:

- chapter on materials was completely revised;
- testing with disinfectant was introduced;
- torque test was added;
- testing for safety valve was changed and optimized;
- coating test procedure was revised;
- normative references were updated;
- editorial changes have been made throughout the entire document.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

With regards to potential adverse effect on the quality of water intended for human consumption, caused by the product covered by this document:

- 1) This document 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, whilst awaiting the adoption of verifiable European criteria, existing national regulations concerning the use or the characteristics of this product remain in force.

EN 1488:2021 (E)**1 Scope**

This document specifies, dimensions, materials and performance requirements (including methods of test) for expansion groups, of nominal sizes from DN 15 to DN 25, having working pressures¹ from 0,1 MPa (1 bar) to 1,0 MPa (10 bar).

Expansion groups are fitted to the cold potable water supply only for expansion purposes, e.g. of storage water heaters, having a maximum distribution temperature of 95 °C.

Expansion groups limit pressure in the water heater to which they are fitted, that is produced by thermal expansion of the water, prevent the backflow of water into the supply pipe and prevent the discharged water to get into contact with the water in the water heater.

Expansion groups do not control temperature and alone do not constitute the protection required for storage water heaters.

NOTE The use of the device specified in this document does not override the need to use controls (e.g. thermostats and thermal cut-outs) which act directly on the power sources of water heaters (for more information see Annex A).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 806 (all parts), *Specifications for installations inside buildings conveying water for human consumption*

EN 1254-2, *Copper and copper alloys — Plumbing fittings — Part 2: Fittings with compression ends for use with copper tubes*

EN 1567, *Building valves — Water pressure reducing valves and combination water pressure reducing valves — Requirements and tests*

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

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*

EN 13959, *Anti-pollution check valves — DN 6 to DN 250 inclusive family E, type A, B, C and D*

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)*

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 (ISO 3822-3)*

EN ISO 6509 (all parts), *Corrosion of metals and alloys — Determination of dezincification resistance of copper alloys with zinc (ISO 6509)*

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)*

EN ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests (ISO 9227)*

¹ All pressures are gauge unless otherwise stated.