
Ventili v stavbah - Ekspanzijski bloki - Preskusi in zahteve

Building valves - Expansion groups - Tests and requirements

Gebäudearmaturen - Sicherheitsgruppen für Expansionswasser - Prüfungen und Anforderungen

Robinetterie de bâtiment - Groupes d'expansion - Essais et exigences

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91.140.60	Sistemi za oskrbo z vodo	Water supply systems

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EUROPEAN STANDARD
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DRAFT
prEN 1488

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ICS 91.140.60

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Building valves - Expansion groups - Tests and requirements

Robinetterie de bâtiment - Groupes d'expansion -
Essais et exigences

Gebäudearmaturen - Sicherheitsgruppen für
Expansionswasser - Prüfungen und Anforderungen

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prEN 1488:2026 (E)**European foreword**

This document (prEN 1488:2026) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1488:2021.

prEN 1488:2026 includes the following significant technical changes with respect to EN 1488:2021:

- 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.

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Introduction

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

- a) 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.
- b) 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.

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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: Compression fittings for use with copper tubes*

EN 1717, *Protection against pollution of water intended for human consumption in potable water installations and general requirements for 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 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 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 (ISO 3822-3:2018)*

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

3 Terms and definitions

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

¹ All pressures are gauge unless otherwise stated.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

expansion group

group that limits the pressure increase due to the volume expansion when water is heated, prevents the backflow of the water into the main circuit and the contamination of water contained in the water heater with discharged water, allows to control the function of the backflow prevention and isolates the water heater for maintenance services

Note 1 to entry: An expansion group comprises of the following components in a single unit, in an upstream to downstream order as shown in Table 1.

Note 2 to entry: For the purpose of this standard the expansion group is hereafter referred as the “device”.

Table 1 — Components of the expansion group

Component	Quantity
an isolating valve	1
a test port for monitoring the check valve	1
a check valve	1
an isolating valve	1 ^a
an additional outlet connection	1 ^a
an expansion valve	1
an air break to drain	1
a pressure measuring port	1 ^a
^a Optional	

3.2

isolating valve

valve that isolates the water heater from the potable water supply

3.3

check valve

valve that allows water to flow into a water heater, and automatically prevents water returning to the water supply

3.4

additional outlet connection

connection to supply cold potable water to be supplied to an additional device, e.g. inline hot water supply tempering valves, etc

3.5

expansion valve

valve that limits the pressure of the water in the water heater to a predetermined value by discharging water to drain