

BS 8663-1:2019



BSI Standards Publication

Fixed fire protection systems – Components for watermist systems

Part 1: Specification and test methods for watermist nozzles

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Contents

	Page
Foreword	iii
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviations	1
4 Construction and performance	4
4.1 Product assembly	4
4.2 Technical literature	4
4.3 Dimensions and pressure rating	4
4.4 Nominal operating temperature for automatic nozzles	4
<i>Table 1 — Nominal operating temperatures and colour codes</i>	5
4.5 Operating temperatures for automatic nozzles	5
4.6 Water flow and distribution	5
4.7 Function	6
4.8 Strength of automatic watermist nozzle body and deflector	6
4.9 Strength of release element for automatic nozzles	6
<i>Figure 1 — Graph of service load and bulb strength distribution curves</i>	7
4.10 Leak resistance for automatic nozzles	7
4.11 Heat exposure (aging) for automatic nozzles	8
4.12 Thermal shock for automatic glass bulb nozzles	8
4.13 Corrosion	8
4.14 Integrity of watermist nozzle coatings (coating resistance to low temperature)	9
4.15 Water hammer for automatic nozzles	9
4.16 Thermal response	9
<i>Figure 2 — Favourable orientation RTI and C factor limits</i>	10
4.17 Resistance to heat	10
4.18 Resistance to vibration	10
4.19 Resistance to impact	10
4.20 Resistance to low temperature for automatic nozzles	10
4.21 Filter rating or strainer mesh opening	11
5 Marking	11
5.1 General	11
5.2 Sidewall watermist nozzles	11
5.3 Concealed watermist nozzles	11
6 Data sheets	12
7 Conditions for testing and type approval testing	12
8 Evaluation of conformity	12
8.1 General	12
8.2 Initial type testing	12
8.3 Factory production control (FPC)	12
8.4 Inspection and testing of in-service nozzles	13
Annex A (normative) Test to determine operating temperatures of fusible link watermist nozzles and glass bulb watermist nozzles	14
<i>Figure A.1 — A typical liquid bath</i>	15
Annex B (normative) Water flow test	15
<i>Figure B.1 — Water flow test apparatus</i>	16
Annex C (normative) Water distribution tests	17
<i>Figure C.1 — Indicative layout of water distribution test chamber</i>	18

	<i>Figure C.2 — Indicative water collection arrangement for sidewall watermist nozzles (plan view)</i>	19
Annex D	(normative) Functional test	20
	<i>Table D.1 — Functional test parameters</i>	20
	<i>Figure D.1 — Example of functional test oven</i>	21
Annex E	(normative) Strength of watermist nozzle body and deflector tests	22
	<i>Figure E.1 — Example of a tensile/compression test machine</i>	23
Annex F	(normative) Strength of release elements test	24
	<i>Table F.1 — Y factors for normal distributions to determine one sided tolerance limits</i>	25
Annex G	(informative) Notes on strength test for fusible link release elements	26
Annex H	(normative) Leak resistance test	27
Annex I	(normative) Heat exposure	27
	<i>Table I.1 — Heat exposure test</i>	28
Annex J	(normative) Automatic glass bulb watermist nozzle thermal shock test	28
Annex K	(normative) Corrosion tests	29
	<i>Figure K.1 — Typical vessel for sulfur dioxide corrosion test</i>	32
Annex L	(normative) Watermist nozzle coatings low temperature test	33
Annex M	(normative) Water hammer test	34
Annex N	(normative) Thermal response tests	34
	<i>Table N.1 — Wind tunnel conditions for plunge test</i>	35
	<i>Figure N.1 — Side view of design of mounting plates arrangement</i>	37
Annex O	(normative) Heat-resistance test	38
Annex P	(normative) Vibration test	38
	<i>Figure P.1 — Vibration test curve</i>	39
Annex Q	(normative) Impact test	40
	<i>Figure Q.1 — Typical impact test apparatus</i>	40
Annex R	(normative) Resistance to low temperature test	41
	Bibliography	42

Summary of pages

This document comprises a front cover, and inside front cover, pages i to iv, pages 1 to 42, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 July 2019. This British Standard was prepared by Subcommittee FSH/18/5, *Watermist systems*, under the authority of Technical Committee FSH/18, *Fixed fire fighting systems*. A list of organizations represented on these committees can be obtained on request to their secretary.

Relationship with other publications

This part of BS 8663 is the first in what is expected to be a series of standards covering watermist system components.

It is intended to be read in conjunction with BS 8458 for residential and domestic watermist systems or BS 8489-1 for industrial and commercial watermist systems.

Information about this document

Watermist nozzles are for use in watermist systems and are designed to provide an additional degree of protection of life and property, above that already achieved by the building design and the installation of smoke and/or fire detectors and systems. This British Standard presumes that the watermist protection will form part of an integrated fire safety system.

Product certification/inspection/testing. Users of this British Standard are advised to consider the desirability of third-party certification/inspection/testing of product conformity with this British Standard. Appropriate conformity attestation arrangements are described in BS EN ISO 9001. Users seeking assistance in identifying appropriate conformity assessment bodies or schemes may ask BSI to forward their enquiries to the relevant association.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”. Its methods are expressed as a set of instructions, a description, or in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard specifies requirements and gives test methods for the construction and performance of open and automatic watermist nozzles for use in watermist systems conforming to BS 8458 or BS 8489-1.

This British Standard does not cover the electrical actuation of watermist nozzles.

NOTE 1 Electrical actuation of watermist nozzles is covered in BS 7273-3 and BS 7273-5.

NOTE 2 All pressure data in this standard are given as gauge pressures in bar¹.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document². For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 8458, *Fixed fire protection systems — Residential and domestic watermist system — Code of practice for design and installation*

BS 8489-1, *Fixed fire protection systems — Industrial and commercial watermist systems — Part 1: Code of practice for design and installation*

BS EN 12259-1, *Fixed firefighting systems — Components for sprinkler and water spray systems — Part 1: Sprinklers*

BS EN 60751, *Industrial platinum resistance thermometers and platinum temperature sensors*

BS EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

3 Terms, definitions and abbreviations

For the purposes of this British Standard, the terms, definitions and abbreviations in BS EN 12259-1 and the following apply.

3.1 automatic watermist nozzle

nozzle with a thermally sensitive sealing device which opens to discharge water for firefighting

3.2 coated watermist nozzle

watermist nozzle with a coating, applied for the purpose of reducing the effects of corrosive environments, excluding decorative paint or painted finishes

3.3 concealed watermist nozzle

recessed watermist nozzle with a cover plate that disengages when heat is applied

3.4 conductivity factor (*C*)

measure of the conductance between the watermist nozzle's heat responsive element and the water-filled fitting, expressed in $\text{m}/\text{s}^{1/2}$

¹ 1 bar = 10^5 N/m² = 100 kPa.

² Documents that are referred to solely in an informative manner are listed in the Bibliography.