

Fixed firefighting systems - Water mist systems - Part
10: Test protocol for atrium protection with sidewall
nozzles for open nozzle systems

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 14972-10:2022 sisaldab Euroopa standardi EN 14972-10:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 14972-10:2022 consists of the English text of the European standard EN 14972-10:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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English Version

**Fixed firefighting systems - Water mist systems - Part 10:
Test protocol for atrium protection with sidewall nozzles
for open nozzle systems**

Installations fixes de lutte contre l'incendie - Systèmes
à brouillard d'eau - Partie 10 : Protocole d'essai des
systèmes à buses ouvertes pour protection d'atrium
avec buses murales

Ortsfeste Brandbekämpfungsanlagen -
Wassernebelsysteme - Teil 10:
Brandversuchsprotokoll für Atriumschutz mit
Seitenwanddüsen für offene Düsensysteme

This European Standard was approved by CEN on 13 March 2022.

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

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European foreword

This document (EN 14972-10:2022) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by October 2022, and conflicting national standards shall be withdrawn at the latest by October 2022.

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.

EN 14972, *Fixed firefighting systems - Water mist systems*, consists of the following parts:

- Part 1: *Design, installation, inspection and maintenance*
- Part 2: *Test protocol for shopping areas for automatic nozzle systems*
- Part 3: *Test protocol for office, school class rooms and hotel for automatic nozzle systems*
- Part 4: *Test protocol for non-storage occupancies for automatic nozzle systems*
- Part 5: *Test protocol for car garages for automatic nozzle systems*
- Part 6: *Test protocol for false floors and false ceilings for automatic nozzle systems*
- Part 7: *Test protocol for commercial low hazard occupancies for automatic nozzle systems*
- Part 8: *Test protocol for machinery in enclosures exceeding 260 m³ for open nozzle systems*
- Part 9: *Test protocol for machinery in enclosures not exceeding 260 m³ for open nozzle systems*
- Part 10: *Test protocol for atrium protection with sidewall nozzles for open nozzle systems*
- Part 11: *Test protocol for cable tunnels for open nozzle systems*
- Part 12: *Test protocol for commercial deep fat cooking fryers for open nozzle systems*
- Part 13: *Test protocol for wet benches and other similar processing equipment for open nozzle systems*
- Part 14: *Test protocol for combustion turbines in enclosures exceeding 260 m³ for open nozzle systems*
- Part 15: *Test protocol for combustion turbines in enclosures not exceeding 260 m³ for open nozzle systems*
- Part 16: *Test protocol for industrial oil cookers for open nozzle systems*
- Part 17: *Test protocol for residential occupancies for automatic nozzle systems*

NOTE This list includes standards that are in preparation and other standards may be added. For current status of published standards refer to www.cenelec.eu.

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1 Scope

This document specifies the evaluation of the fire performance of water mist systems for fire protection of interior atriums, with low or medium fire load where the fire load or any obstructions do not extend above 1,5 m height.

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 14972-1:2020, *Fixed firefighting systems - Water mist systems - Part 1: Design, installation, inspection and maintenance*

ISO 5660-1, *Reaction-to-fire tests - Heat release, smoke production and mass loss rate - Part 1: Heat release rate (cone calorimeter method) and smoke production rate (dynamic measurement)*

3 Terms, definitions and abbreviations

3.1 Terms and definition

For the purposes of this document, the terms and definitions given in EN 14972-1 and the following apply.

ISO and IEC maintain terminological 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/>

3.1.1

atrium

open space inside buildings or inside of a building complex with high ceiling exceeding the height of one story where the fire load is located at the floor level only

3.1.2

low fire load

non-storage, non-manufacturing occupancy where the quantity and combustibility of the content are low (less than 150 MJ/m²)

3.1.3

medium fire load

non-storage, non-manufacturing occupancy where the quantity and combustibility of the content are medium (between 150 MJ/m² and 500 MJ/m²)

3.2 Abbreviations

For the purposes of this document, the following abbreviations apply.

<i>CL</i>	coverage length
<i>H</i>	maximum installation height