



SLOVENSKI STANDARD
oSIST prEN 14972-18:2026
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Vgrajeni gasilni sistemi - Sistemi s pršečo vodo - 18. del: Protokol preskušanja sistemov za lokalno uporabo pri požarih z vnetljivimi tekočinami za sisteme z odprtimi šobami

Fixed firefighting systems - Water mist systems - Part 18: Test protocol for local application involving flammable liquid fires for open nozzle systems

Ortsfeste Brandbekämpfungsanlagen - Wassernebelsysteme - Teil18: Prüfprotokoll für den örtlichen Einsatz bei Bränden mit brennbaren Flüssigkeiten für offene Düsensysteme

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ICS:

13.220.10 Gašenje požara Fire-fighting

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Fixed firefighting systems - Water mist systems - Part 18: Test protocol for local application involving flammable liquid fires for open nozzle systems

Ortsfeste Brandbekämpfungsanlagen -
Wassernebelssysteme - Teil 18: Prüfprotokoll für den
örtlichen Einsatz bei Bränden mit brennbaren
Flüssigkeiten für offene Düsensysteme

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European foreword

This document (prEN 14972-18:2026) has been prepared by Technical Committee CEN/TC 191 “Fixed firefighting systems”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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 manually activated 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;*
- *Part 18: Test protocol for local application involving flammable liquid fires for open nozzle systems.*

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

prEN 14972-18:2026(E)

1 Scope

This document specifies the evaluation of the fire performance of water mist systems used for local application involving flammable liquid fires.

The tests specified in this document are applicable to the following:

- a) flammable liquid pool fires where the liquid release can be confined to a banded area, where the entire surface of the banded area is protected by the water mist system;
- b) flammable liquid channel fires in channels not exceeding the maximum specified width of the water mist system and with no limited channel length;
- c) partially obstructed flammable liquid pool fires where the percentage of obstructed surface is limited to that tested;
- d) spray fires up to 6 MW fuelled by flammable liquids;
- e) spray and pool fire combinations where confined to a banded area;
- f) flammable liquid residues (ink and paper dust) on printing presses.

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+A1:2025, *Fixed firefighting systems — Water mist systems — Part 1: Design, installation, inspection and maintenance*

3 Terms and definitions

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

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/>

4 General requirements

4.1 General

The water mist system shall be capable of extinguishing the fire scenarios in this document for the application for which it is intended to be used. Table 1 shall be used to determine the fire test scenarios to be tested.

Table 1 — Fire test scenarios

Fire test description	Application type			
	2D ignitable liquid pool fire protection	combination 2D ignitable liquid pool fire and spray fire protection	Spray fire - point protection	2D ignitable liquid channel protection
Square pool fire (see 8.2)				
($X \times X$) pool at maximum nozzle height	X	X	—	—
($2X \times 2X$) pool at maximum nozzle height	X	X	—	—
($3X \times 3X$) pool at maximum nozzle height	X	X	—	—
($3X \times 3X$) pool at minimum nozzle height	X	X	—	—
Channel pool fire (see 8.3)				
($Y \times Y$) channel at maximum nozzle height	—	—	—	X
($Y \times 2Y$) channel at maximum nozzle height	—	—	—	X
($Y \times 3Y$) channel at maximum nozzle height	—	—	—	X
($Y \times 3Y$) at minimum nozzle height	—	—	—	X
Spray fire (see 8.4)				
Horizontal spray at maximum nozzle distance from spray	—	—	X	—
Horizontal spray at minimum nozzle distance from spray	—	—	X	—
Vertical spray at maximum nozzle distance from spray	—	—	X	—
Vertical spray at minimum nozzle distance from spray	—	—	X	—
Combined pool and spray fire (see 8.5)				
Arrangement Figure 4 a) at	—	X	—	—