

CEN/TC191/WG10 „Water Mist“ –Overview

EFSN 31.05.2023 – Àlex Palau

Fire Protection.

Agenda

1) EN14972-1

2) Fire Test Protocols: EN14972-2...17

- Building Protection Overview
- Industrial Protection Overview
- Protocols status Overview

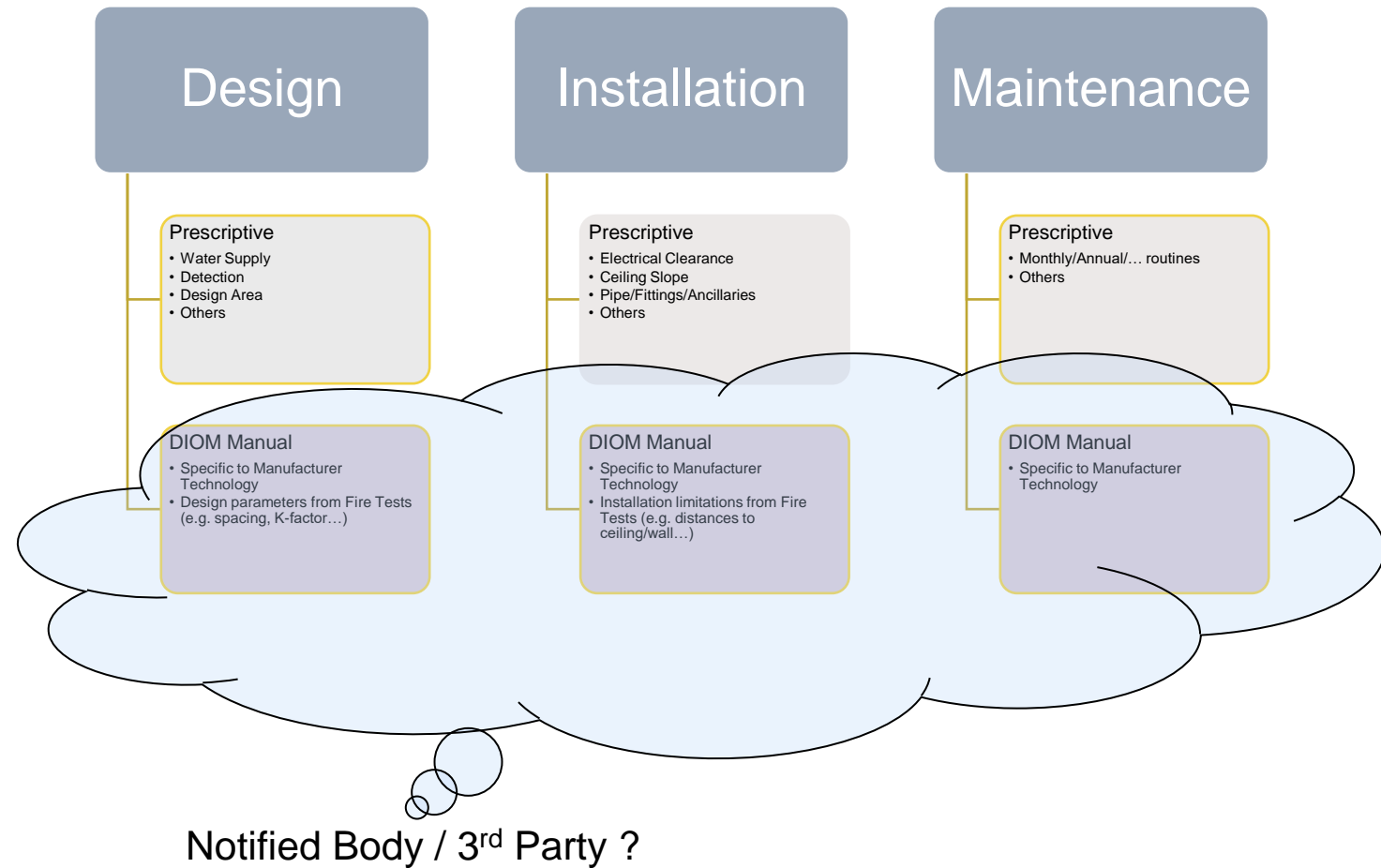
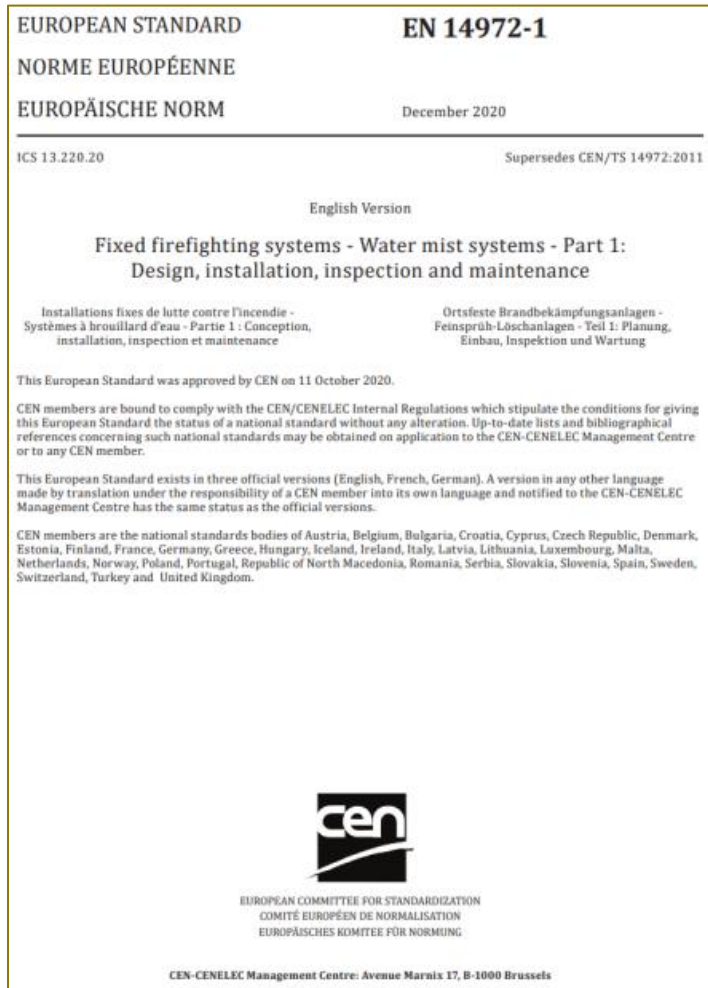
3) Component Test Protocols EN17450 series

- Protocols Overview
- Protocols status Overview

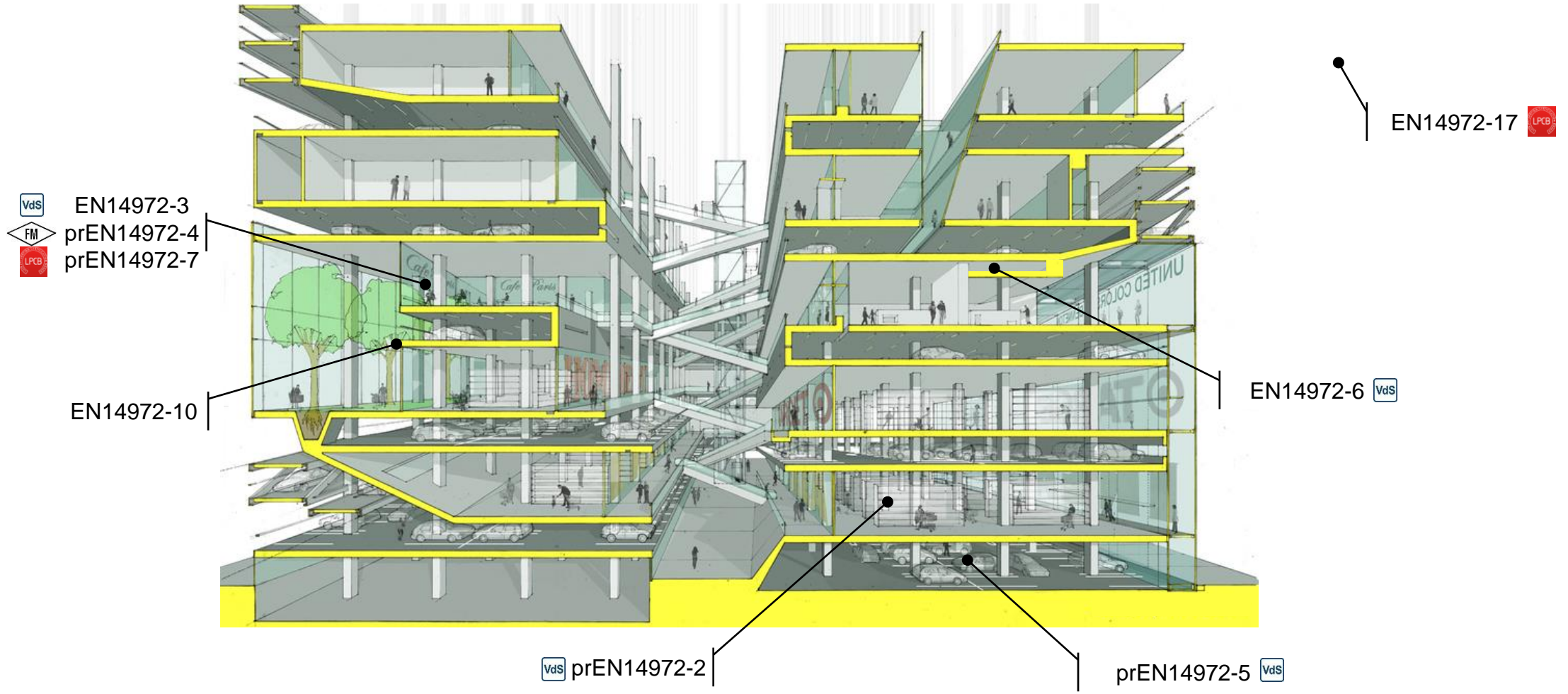
4) EN14972-1/A1

Publish in 03-2021

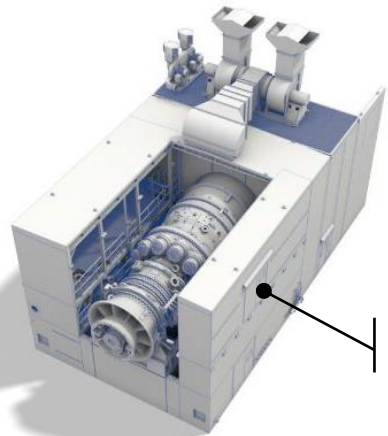
→ Implemented at National Level June 30th 2021



EN14972-2...17 – Building Protection



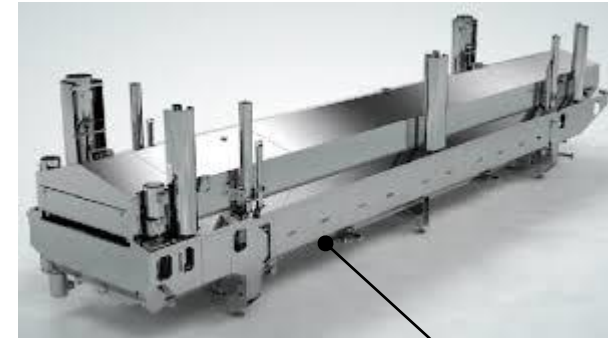
& EN14972-1 Annex A



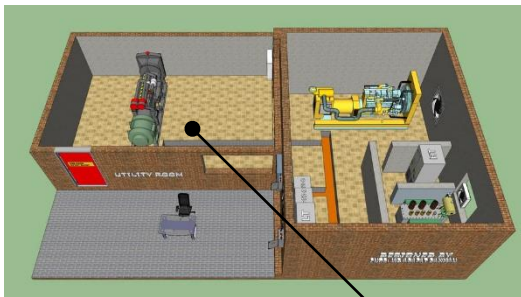
EN14972-14
EN14972-15



EN14972-11 Vds



EN14972-16



EN14972-8
EN14972-9



EN14972-13



EN14972-12

& EN14972-1 Annex A

Fire Test Protocol	Public Enquiry	Formal Vote	Publication
prEN14972-2 Shopping areas	-	-	-
EN14972-3 Offices and Hotels	08-2019	03-2021	02-2022
prEN14972-4 Non-storage Occupancies	05-2023	07-2024	03-2025
prEN14972-5 Car Parks	08-2023	04-2025	12-2025
prEN14972-6 False floors/False ceilings	03-2023	03-2023	11-2023
prEN14972-7 Commercial Low Hazard Occupancies	07-2022	06-2023	02-2024
EN14972-8 Machinery spaces >260m3	06-2019	01-2020	07-2020
EN14972-9 Machinery spaces <260m3	02-2019	11-2019	07-2020
EN14972-10 Atrium protection	03-2021	03-2022	10-2022
prEN14972-11 Cable Tunnel protection	07-2022	03-2023	11-2023

Fire Test Protocol	Public Enquiry	Formal Vote	Publication
prEN14972-12 Commercial Kitchen	05-2023	07-2024	12-2024
prEN14972-13 Wet Benches	-	-	-
EN14972-14 Turbine enclosures >260m3	03-2021	08-2021	03-2022
EN14972-15 Turbine enclosures <260m3	03-2021	08-2021	03-2022
EN14972-16 Industrial Oil Cookers	01-2019	07-2019	02-2020
prEN14972-17 Residential Occupancies	07-2022	09-2023	04-2024
prEN14972-XX More to come			

← 9 months extension requested



EN17450-1 Filters and Strainers

prEN17450-2 Nozzles

prEN17450-3 Check Valves

prEN17450-4 Deluge Valves & Actuators

prEN17450-5 Pressure Switches

Component Test Protocol	Public Enquiry	Formal Vote	Publication
EN17450-1 Filters and Strainers	02-2020	01-2021	08-2021
prEN17450-2 Nozzles	07-2023	02-2025	10-2025
prEN17450-3 Check Valves	-	-	-
prEN17450-4 Deluge Valves & Actuators	-	-	-
prEN17450-5 Pressure Switches	-	-	-
prEN17450-XX More to come			

- New Annexes: Scope/Design Limitations

2	Addition of Annexes.....	10
2.1	New Annex C for additional information regarding EN 14972-2.....	10
2.2	New Annex D for additional information regarding EN 14972-3.....	11
2.3	New Annex E for additional information regarding EN 14972-4.....	12
2.4	New Annex F for additional information regarding EN 14972-5.....	13
2.5	New Annex G for additional information regarding EN 14972-6.....	13
2.6	New Annex H for additional information regarding EN 14972-7.....	14
2.7	New Annex I for additional information regarding EN 14972-8.....	15
2.8	New Annex J for additional information regarding EN 14972-9.....	16
2.9	New Annex K for additional information regarding EN 14972-10.....	17
2.10	New Annex L for additional information regarding EN 14972-11.....	18
2.11	New Annex M for additional information regarding EN 14972-12.....	18
2.12	New Annex N for additional information regarding EN 14972-13.....	19
2.13	New Annex O for additional information regarding EN 14972-14.....	19
2.14	New Annex P for additional information regarding EN 14972-15.....	20
2.15	New Annex Q for additional information regarding EN 14972-16.....	21
2.16	New Annex R for additional information regarding EN 14972-17.....	21

Additional guidance for water mist systems tested in accordance to EN 14972-2

C.1 Regarding the scope of the water mist system

A water mist system successfully tested according to the test protocol EN 14972-2 is applicable to the following areas:

- Sales areas;
- Storage areas adjacent to sales areas (excluding flammable liquids, gases and other highly flammable areas);
- Archives;
- Libraries;
- Technical areas;
- or similar.

It should be taken into account, that in the test protocol EN 14972-2 ventilation and obstructions are not addressed.

The maximum storage area for storage categories ST1 to ST4 is 120 m². The maximum total protected area is 500 m².

The storage area shall be contained inside non-flammable or fire resistant walls.

Chaotic deposit of materials with outside plastic surface >25 % without paper board container is allowed to 5 % of the complete storage and exposition capacity.

Additional guidance for water mist systems tested in accordance to EN 14972-14

0.1 Regarding the scope of the water mist system

Water mist systems tested in accordance to EN 14972-14 also apply to steam turbines in enclosures and accessories like oil pumps, oil tanks, fuel filters, generators and hydraulic aggregates.

It shall be noted that forced ventilation and any openings shall be closed upon system actuation; doorway screening spray heads shall not be used in lieu of automatic closing devices. Obstructions are not addressed in the test protocol.

Only water mist systems that have passed the saturated mat test can be applied for thermally insulated turbines protection.

0.2 Additional design and installation parameters

The maximum opening area shall be $4 \times \left(\frac{V_{real}}{V_{tested}} \right)$.

Full protection of the enclosure is required.

- Main EN14972-1 text amendments:

5.3.9.2	Pipe support spacing	Technical		Add additional text: 'Pipe supports should be located not more than 300 mm either side of any fitting or connection.'
7.2.11.1	Design for centrifugal pumps	Technical		Add additional text: 'The requirements of this subclause shall be applied equally to all pump types, including positive displacement pumps.'

