



Land Standards



Standard	
General Design & Installation	
EN 14972-1: 2020	Fixed firefighting systems - Water mist systems Design and installation
VdS 3188: 2020	Water Mist Sprinkler Systems and Water Mist Extinguishing Systems (High Pressure Systems) - Planning and Installation
NFPA 750: 2023	Standard on Water Mist Fire Protection Systems
FM Global Loss Prevention Data Sheet 4-2: 2022	Water mist systems

Business Segment	Application	Fire Test Protocols	Type approvals	
Residential	Residential occupancies	prEN 14972-17	Test protocol for residential occupancies for automatic nozzle systems	
		BS 8458: 2015	Fixed fire protection systems – Residential and domestic watermist systems – Code of practice for design and installation	LPCB
		UL 2167: 2021	Water Mist Nozzles for Fire Protection Service Ch.44 - Residential area fire tests	UL
Commercial buildings	Offices, schools, hotels, recreational areas, etc (EUR OH1, FM HC-1, NFPA LH)	EN 14972-3: 2021	Test protocol for office, school class rooms and hotel for automatic nozzle systems	
		EN 14972-4: 2024	Test protocol for non-storage occupancies for automatic nozzle systems	LPCB
		EN 14972-7: 2023	Test protocol for commercial low hazard occupancies for automatic nozzle systems	LPCB
		VdS 3883-1en: 2020	Fire Test Protocol for Water Mist Systems, Part 1: Protection of office spaces and accommodation areas	VdS
		BS 8489-7: 2016	Fixed fire protection systems – Industrial and commercial watermist systems Part 7: Fire performance tests and requirements for watermist systems for the protection of low hazard occupancies	LPCB
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX G: Fire tests for water mist systems for the protection of non-storage occupancies, Hazard Category 1 (HC-1) [formerly Light Hazard occupancies]	FM Approvals
		UL 2167: 2021	Water Mist Nozzles for Fire Protection Service Ch.43 - Shipboard public space fire tests & Ch.45 - Light Hazard area fire tests	
	Sidewall sprinklers	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX G: Fire tests for water mist systems for the protection of non-storage occupancies, Hazard Category 1 (HC-1) [formerly Light Hazard occupancies]	FM Approvals
		VdS 3883-2en: 2020	Protection of Office Spaces and Accommodation Areas with Water Mist Sidewall Sprinklers	VdS
	False floors and false ceilings	EN 14972-6: 2023	Test protocol for false floors and false ceilings for automatic nozzle systems	
		VdS 3883-3en: 2020	Fire Test Protocol for Water Mist Systems, Part 3: Protection of False Ceilings and False Floor of OH Group 1	VdS
	Atrium	EN 14972-10: 2022	Test protocol for atrium protection with sidewall nozzles for open nozzle systems	
	Car garages / Parking garages NFPA OH1	FprEN 14972-5	Test protocol for car garages for automatic nozzle systems	
		VdS 3883-4en: 2020	Fire Test Protocol for Water Mist Systems, Part 4: Protection of car garages	VdS
		UL 2167: 2021	Water Mist Nozzles for Fire Protection Service Ch.46 - Ordinary Hazard Group 1 fire tests	UL
	Sales, storage & shopping areas NFPA OH2	prEN 14972-2 (no published document available yet)	Test protocol for shopping areas for automatic nozzle systems	
		VdS 3883-5en	Fire Test Protocol for Water Mist Systems, Part 5: Protection of selected sales and storage areas and mechanical floors	VdS
		UL 2167: 2021	Water Mist Nozzles for Fire Protection Service Ch.47 - Ordinary Hazard Group 2 fire tests	
	FM Global Non-Storage Occupancies, Hazard Category 2 (HC-2)	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX P: Fire tests for water mist systems for the protection of non-storage occupancies, Hazard Category 2 (HC-2)	FM Approvals
	FM Global Non-Storage Occupancies, Hazard Category 3 (HC-3)	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX P: Fire tests for water mist systems for the protection of non-storage occupancies, Hazard Category 3 (HC-3)	FM Approvals
Data halls	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX M: Fire tests for water mist systems for the protection of data processing equipment rooms/halls - above raised floor	FM Approvals	
	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX N: Fire tests for water mist systems for the protection of data processing equipment rooms/halls - below raised floor	FM Approvals	
Mechanical escalators	VdS-Rolltreppen/escalator_en_V1(Draft)-20.08.09	Test Setup and Requirements - Protection of mechanical escalator	VdS	
Commercial deep fat cooking fryers	FprEN 14972-12	Test protocol for commercial deep fat cooking fryers for open nozzle systems		
Industrial applications	Machinery spaces & turbine enclosures < 80 m³	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX A: Fire tests for water mist systems for the protection of machinery in enclosures with volumes not exceeding 80 m³	FM Approvals
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX B: Fire tests for water mist systems for the protection of combustion turbines in enclosures with volumes not exceeding 80 m³	FM Approvals
	Machinery spaces & turbine enclosures < 260 m³	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX C: Fire tests for water mist systems for the protection of machinery in enclosures with volumes not exceeding 260 m³	VdS, FM Approvals
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX D: Fire tests for water mist systems for the protection of combustion turbines in enclosures with volumes not exceeding 260 m³	VdS, FM Approvals
		EN 14972-9: 2020	Test protocol for machinery in enclosures not exceeding 260 m³ for open nozzle systems	
	Machinery spaces & turbine enclosures > 260 m³	EN 14972-15: 2021	Test protocol for combustion turbines in enclosures not exceeding 260 m³ for open nozzle systems	
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX E: Fire tests for water mist systems for the protection of machinery in enclosures with volumes exceeding 260 m³	VdS, FM Approvals
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX F: Fire tests for water mist systems for the protection of combustion turbines in enclosures with volumes exceeding 260 m³	VdS, FM Approvals
	Local application	EN 14972-8: 2020	Test protocol for machinery in enclosures exceeding 260 m³ for open nozzle systems	
		EN 14972-14: 2021	Test protocol for combustion turbines in enclosures exceeding 260 m³ for open nozzle systems	
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX I: Fire tests for water mist systems for the protection of local applications	FM Approvals
	Wet benches and other similar processing equipment	prEN 14972-13 (no published document available yet)	Test protocol for wet benches and other similar processing equipment for open nozzle systems	
		FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX H: Fire tests for water mist systems for the protection of wet benches and other similar processing equipment	FM Approvals
	Chemical fume hoods	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX L: Fire tests for water mist systems for the protection of chemical fume hoods	
	Industrial oil cookers	EN 14972-16: 2020	Test protocol for industrial oil cookers for open nozzle systems	
FM 5560: 2021		Approval Standard for Water Mist Systems, APPENDIX J: Fire tests for water mist systems for the protection of industrial oil cookers	FM Approvals	
Continuous wood board presses	FM 5560: 2021	Approval Standard for Water Mist Systems, APPENDIX K: Fire tests for water mist systems for the protection of continuous wood board presses	FM Approvals	
Cable tunnels / Cable ducts	EN 14972-11: 2023	Test protocol for cable tunnels for open nozzle systems		
	VdS 3883-8en	Fire Test Protocol for Water Mist Systems, Part 8: Protection of Cable Ducts	VdS	
Flammable liquid storages and processing	VdS 3883-7en	Fire Test Protocol for Water Mist Systems, Part 7: Protection of Areas with Combustible Liquids	VdS	
Paint shops / booths	VdS 3883-6en	Fire Test Protocol for Water Mist Systems, Part 6: Protection of Paint Booths	VdS	

Footnote 1; If standards for an application do not yet exist, IWMA recommends full-scale fire tests to prove system performance.