



SLOVENSKI STANDARD

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Vgrajene naprave za gašenje - Avtomatski sprinklerski sistemi - Projektiranje, vgradnja in vzdrževanje

Fixed firefighting systems - Automatic sprinkler systems - Design, installation and maintenance

Ortsfeste Brandbekämpfungsanlagen - Automatische Sprinkleranlagen - Planung, Installation und Instandhaltung

Installations fixes de lutte contre l'incendie - Systèmes d'extinction automatique du type sprinkleur - Conception, installation et maintenance

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Fixed firefighting systems - Automatic sprinkler systems - Design, installation and maintenance

Installations fixes de lutte contre l'incendie - Systèmes
d'extinction automatique du type sprinkleur - Conception,
installation et maintenance

Ortsfeste Brandbekämpfungsanlagen - Automatische
Sprinkleranlagen - Planung, Installation und Instandhaltung

This draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 191.

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CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

	Page
Foreword.....	12
Introduction	13
1 Scope	15
2 Normative references	15
3 Terms and definitions	16
4 Contract planning and documentation.....	23
4.1 General.....	23
4.2 Initial considerations	23
4.3 Preliminary or estimating stage	23
4.4 Design stage.....	24
4.4.1 General.....	24
4.4.2 Summary schedule	24
4.4.3 Installation layout drawings	25
4.4.4 Water supply	28
5 Extent of sprinkler protection.....	30
5.1 Buildings and areas to be protected.....	30
5.1.1 General.....	30
5.1.2 Permitted exceptions within a building	30
5.1.3 Necessary exceptions	30
5.2 Storage in the open air	30
5.3 Fire resistant separation	30
5.4 Protection of concealed spaces.....	31
5.5 Height difference between the highest and lowest sprinklers	31
6 Classification of occupancies and fire hazards	31
6.1 General.....	31
6.2 Hazard classes	31
6.2.1 General.....	31
6.2.2 Light Hazard – LH	31
6.2.3 Ordinary Hazard – OH	31
6.2.4 High Hazard – HH.....	32
6.3 Storage.....	33
6.3.1 General.....	33
6.3.2 Storage Configuration	33
7 Hydraulic design criteria.....	36
7.1 LH, OH and HHP.....	36
7.2 High Hazard Storage – HHS	37
7.2.1 General.....	37
7.2.2 Ceiling protection only.....	37
7.2.3 Intermediate level in-rack sprinklers	38
7.3 Pressure and flow requirements for pre-calculated systems	40
7.3.1 LH and OH systems	40
7.3.2 HHP and HHS systems without in-rack sprinklers	40
8 Water supplies	42
8.1 General.....	42
8.1.1 Duration	42
8.1.2 Continuity	42
8.1.3 Frost protection	43

8.2	Maximum water pressure	43
8.3	Connections for other services	44
8.4	Housing of equipment for water supplies.....	44
8.5	Test facility devices.....	44
8.5.1	General	44
8.5.2	At pump house	45
8.5.3	At control valve sets	45
8.6	Water supply test.....	45
8.6.1	General	45
8.6.2	Storage tank and pressure tank supplies	46
8.6.3	Town main, booster pump, elevated private reservoir and gravity tank supplies	46
9	Type of water supply.....	46
9.1	General	46
9.2	Town mains	46
9.3	Storage tanks	46
9.3.1	General	46
9.3.2	Water volume	47
9.3.3	Refill rates for full capacity tanks	48
9.3.4	Reduced capacity tanks.....	48
9.3.5	Effective capacity of tanks and dimensions of suction chambers	49
9.3.6	Strainers	51
9.4	Inexhaustible sources – settling and suction chambers	51
9.5	Pressure tanks.....	54
9.5.1	General	54
9.5.2	Housing	54
9.5.3	Minimum capacity (water).....	54
9.5.4	Air pressure and contents	54
9.5.5	Charging with air and water	55
9.5.6	Control and safety equipment.....	55
9.6	Choice of water supply	55
9.6.1	Single water supplies	55
9.6.2	Superior single water supplies	56
9.6.3	Duplicate water supplies	56
9.6.4	Combined water supplies	56
9.7	Isolation of water supply	57
10	Pumps.....	57
10.1	General	57
10.2	Multiple pump arrangements	57
10.3	Compartments for pumpsets	58
10.3.1	General	58
10.3.2	Sprinkler protection	58
10.3.3	Temperature	58
10.3.4	Ventilation	58
10.4	Maximum temperature of water supply.....	58
10.5	Valves and accessories	58
10.6	Suction conditions	59
10.6.1	General	59
10.6.2	Suction pipe	59
10.7	Performance characteristics	62
10.7.1	Pre-calculated systems – LH and OH.....	62
10.7.2	Pre-calculated systems – HHP and HHS with no in-rack sprinklers.....	63
10.7.3	Calculated systems	64
10.7.4	Pressure and water capacity of boosted town mains	64
10.7.5	Pressure switches	65
10.8	Electrically driven pumpsets.....	65
10.8.1	General	65

FprEN 12845:2014 (E)

10.8.2	Electricity supply	65
10.8.3	Main switchboard.....	66
10.8.4	Installation between the main switchboard and the pump controller.....	66
10.8.5	Pump controller	67
10.8.6	Monitoring of pump operation.....	67
10.9	Diesel engine driven pumpsets.....	67
10.9.1	General.....	67
10.9.2	Engines	67
10.9.3	Cooling system	68
10.9.4	Air filtration.....	68
10.9.5	Exhaust system.....	68
10.9.6	Fuel, fuel tank and fuel feed pipes	68
10.9.7	Starting mechanism	69
10.9.8	Electric starter motor batteries	70
10.9.9	Battery chargers	70
10.9.10	Siting of batteries and chargers.....	70
10.9.11	Starter alarm indication.....	71
10.9.12	Tools and spare parts	71
10.9.13	Engine tests and exercising	71
11	Installation type and size	72
11.1	Wet pipe installations.....	72
11.1.1	General.....	72
11.1.2	Protection against freezing.....	72
11.1.3	Size of installations	72
11.2	Dry pipe installations	73
11.2.1	General.....	73
11.2.2	Size of installations	73
11.3	Alternate installations	73
11.3.1	General.....	73
11.3.2	Size of installations	74
11.4	Pre-action installations	74
11.4.1	General.....	74
11.4.2	Automatic detection system.....	74
11.4.3	Size of installations	75
11.5	Subsidiary dry pipe or alternate extension.....	75
11.5.1	General.....	75
11.5.2	Size of subsidiary extensions	75
11.6	Subsidiary water spray extension.....	75
12	Spacing and location of sprinklers	75
12.1	General.....	75
12.2	Maximum area of coverage per sprinkler.....	76
12.3	Minimum distance between sprinklers.....	77
12.4	Location of sprinklers in relation to building construction.....	78
12.5	Intermediate sprinklers in HH occupancies	84
12.5.1	General.....	84
12.5.2	Maximum vertical distance between sprinklers at intermediate levels	84
12.5.3	Horizontal position of sprinklers at intermediate levels.....	84
12.5.4	Numbers of rows of sprinklers at each level	86
12.5.5	HHS intermediate sprinklers in non-shelved racks.....	86
12.5.6	HHS intermediate sprinklers below solid or slatted shelves in racks (ST5 and ST6)	87
13	Pipe sizing and layout.....	88
13.1	General.....	88
13.1.1	Pipe sizing	88
13.2	Calculation of pressure losses in pipework	88
13.2.1	Pipe friction loss	88

13.2.2	Static pressure difference	89
13.2.3	Velocity	89
13.2.4	Pressure loss through fittings and valves	89
13.2.5	Accuracy of calculations	90
13.3	Pre-calculated systems.....	91
13.3.1	General	91
13.3.2	Location of Design Points	91
13.3.3	Light Hazard - LH.....	92
13.3.4	Ordinary Hazard - OH	93
13.3.5	High hazard - HHP and HHS (except intermediate level sprinklers)	95
13.4	Fully calculated systems	103
13.4.1	Design density	103
13.4.2	Locations of the area of operation	104
13.4.3	Shape of the area of operation.....	104
13.4.4	Minimum sprinkler discharge pressure	108
13.4.5	Minimum pipe diameters	108
14	Sprinkler design characteristics and uses	108
14.1	General	108
14.2	Sprinkler types and application	108
14.2.1	General	108
14.2.2	Ceiling, flush, recessed and concealed pattern	109
14.2.3	Sidewall pattern	109
14.2.4	Flat spray pattern	109
14.3	Flow from sprinklers	109
14.4	Sprinkler temperature ratings	110
14.5	Sprinkler thermal sensitivity	111
14.5.1	General	111
14.5.2	Interaction with other measures	111
14.6	Sprinkler guards	111
14.7	Sprinkler water shields	111
14.8	Sprinkler rosettes	112
14.9	Corrosion protection of sprinklers	112
15	Valves	112
15.1	Control valve set.....	112
15.2	Stop valves.....	112
15.3	Ring main valves	112
15.4	Drain valves	112
15.5	Test valves	113
15.5.1	Alarm and pump start test valves	113
15.5.2	Remote test valves	113
15.6	Flushing connections	114
15.7	Pressure gauges.....	114
15.7.1	General	114
15.7.2	Water supply connections.....	114
15.7.3	Control valve set.....	114
15.7.4	Removal.....	115
16	Alarms and alarm devices	115
16.1	Water flow alarms	115
16.1.1	General	115
16.1.2	Water motor and gong	115
16.1.3	Piping to water motor.....	115
16.2	Electrical water flow and pressure switches	115
16.2.1	General	115
16.2.2	Water flow alarm switches.....	115
16.2.3	Dry and pre-action systems	116

FprEN 12845:2014 (E)

16.3	Fire brigade and remote central station alarm connection	116
17	Pipework	116
17.1	General.....	116
17.1.1	Underground piping	116
17.1.2	Above ground piping.....	116
17.1.3	Welding of steel pipe	116
17.1.4	Flexible pipes and joints	117
17.1.5	Concealment	117
17.1.6	Protection against fire and mechanical damage	117
17.1.7	Painting.....	117
17.1.8	Drainage.....	117
17.1.9	Copper pipe	118
17.2	Pipe supports	118
17.2.1	General.....	118
17.2.2	Spacing and location.....	118
17.2.3	Design	119
17.3	Pipework in concealed spaces.....	119
17.3.1	General.....	119
17.3.2	False ceilings above OH occupancies	120
17.3.3	All other cases	120
18	Signs, notices, and information	120
18.1	Block plan.....	120
18.1.1	General.....	120
18.2	Signs and notices	120
18.2.1	Location plate.....	120
18.2.2	Signs for stop valves.....	120
18.2.3	Control valve set.....	121
18.2.4	Water supply connections to other services	121
18.2.5	Suction and booster pumps	121
18.2.6	Electric switches and control panels.....	122
18.2.7	Testing and operating devices	122
19	Commissioning	122
19.1	Commissioning tests	122
19.1.1	Pipework	122
19.1.2	Equipment	123
19.1.3	Water supplies	123
19.2	Completion certificate and documents	123
20	Maintenance	123
20.1	General.....	123
20.1.1	Introduction	123
20.1.2	Programmed work	123
20.1.3	Precautions while carrying out work.....	124
20.1.4	Replacement sprinklers	124
20.2	User's programme of inspection and checking.....	124
20.2.1	General.....	124
20.2.2	Weekly routine	124
20.2.3	Monthly routine.....	125
20.3	Service and maintenance schedule.....	125
20.3.1	General.....	125
20.3.2	Quarterly routine.....	125
20.3.3	Half-yearly routine	127
20.3.4	Yearly routine	127
20.3.5	3 Yearly routine.....	128
20.3.6	10 yearly routine	128

21	Third party inspection.....	128
Annex A (normative) Classification of typical hazards.....		129
Annex B (normative) Methodology for categorizing stored goods		132
B.1	General	132
B.2	Material factor (M).....	132
B.2.1	General	132
B.2.2	Material Factor 1	132
B.2.3	Material factor 2	133
B.2.4	Material factor 3	133
B.2.5	Material factor 4	134
B.3	Storage configuration	134
B.3.1	Effect of storage configuration	134
B.3.2	Exposed plastic container with non-combustible content	134
B.3.3	Exposed plastic surface – unexpanded	135
B.3.4	Exposed plastic surface – expanded	135
B.3.5	Open structure.....	135
B.3.6	Solid block materials.....	135
B.3.7	Granular or powdered materials	136
B.3.8	No special configuration.....	136
Annex C (normative) Alphabetical listing of stored products and categories		137
Annex D (normative) Zoning of sprinkler installations.....		141
D.1	General	141
D.2	Zoning of installations	141
D.3	Requirements for zoned installations	141
D.3.1	Extent of zones	141
D.3.2	Zone subsidiary stop valves	141
D.3.3	Flushing Valves	141
D.3.4	Monitoring	142
D.3.5	Zone test and drainage facilities.....	142
D.3.6	Installation control valve set	142
D.3.7	Installation monitoring and alarms.....	142
D.4	Block plan.....	143
Annex E (normative) Special requirements for high rise systems		144
E.1	General	144
E.2	Design criteria.....	144
E.2.1	Hazard group	144
E.2.2	Subdivision of high rise sprinkler systems	144
E.2.3	Standing water pressures at non-return and alarm valves.....	144

FprEN 12845:2014 (E)

E.2.4	Calculation of distribution pipework for pre-calculated systems	144
E.2.5	Water pressures.....	144
E.3	Water supplies	145
E.3.1	Types of water supplies	145
E.3.2	Pressure and flow requirements for pre-calculated installations	145
E.3.3	Water supply characteristics for pre-calculated installations	145
E.3.4	Pump performance for pre-calculated installations.....	145
Annex F (normative)	Additional measures to improve system reliability and availability	148
F.1	General.....	148
F.2	Subdivision into zones.....	148
F.3	Wet pipe installations	148
F.4	Sprinkler type and sensitivity.....	148
F.5	Control valve set.....	148
F.6	Water supplies	148
F.7	Additional measures for theatres.....	148
F.8	Additional precautions for maintenance.....	149
Annex G (normative)	Protection of special hazards.....	150
G.1	General.....	150
G.2	Aerosols.....	150
G.3	Clothes in multiple garment hanging storage	150
G.3.1	General.....	150
G.3.2	Categorization	150
G.3.3	Sprinkler protection other than at ceiling	151
G.3.4	Sprinklers in operation.....	151
G.3.5	Ceiling sprinklers.....	151
G.3.6	Automatic shutdown	151
G.3.7	Control valve set.....	151
G.4	Flammable liquid storage	152
G.5	Idle pallets	153
G.6	Spirit based liquors in wooden barrels	154
G.7	Non-woven synthetic fabric.....	154
G.7.1	Free standing storage	154
G.7.2	Rack storage	155
G.8	Polypropylene or polyethylene storage bins.....	155
G.8.1	General.....	155
G.8.2	Classification.....	155
G.8.3	Palletized rack storage (ST4).....	155
G.8.4	All other storage	155

G.8.5	Foam additive	156
Annex H	(normative) Sprinkler systems monitoring.....	157
H.1	General	157
H.2	Functions to be monitored	157
H.2.1	General	157
H.2.2	Stop valves controlling water flow to sprinklers	157
H.2.3	Other stop valves	157
H.2.4	Liquid levels	157
H.2.5	Pressures	157
H.2.6	Electrical power	158
H.2.7	Temperature	158
Annex I	(normative) Transmission of alarms.....	159
I.1	Functions to be monitored	159
I.2	Alarm levels	160
Annex J	(informative) Precautions and procedures when a system is not fully operational	161
J.1	Minimizing the effects	161
J.2	Planned shut-down	161
J.3	Unplanned shut-down.....	162
J.4	Action following sprinkler operation.....	162
J.4.1	General	162
J.4.2	Installations protecting cold storage warehouses (air circulation refrigeration).....	162
Annex K	(informative) Twenty-five year inspection.....	163
Annex L	(informative) Special technology	164
Annex M	(informative) Independent certification body.....	165
Annex N	(normative) Control Mode Specific Application Sprinklers: CMSA	166
N.1	Introduction.....	166
N.1.1	General	166
N.1.2	Definitions	166
N.1.3	General	166
N.1.4	Sprinkler type and temperature rating	166
N.1.5	Water demand.....	167
N.2	Sprinkler location	167
N.2.1	Sprinkler spacing	167
N.2.2	Range pipe sizes	167
N.2.3	Minimum clear space below sprinklers.....	167
N.2.4	Excessive clearance.....	167
N.2.5	Distance of sprinklers below ceiling	167
N.2.6	Location of sprinklers in beam and girder, concrete T and panel construction	168

FprEN 12845:2014 (E)

N.2.7	Obstructions to sprinkler distribution	168
N.3	Design	172
Annex O	(informative) Example of P&ID	177
Annex P	(normative) ESFR sprinkler protection.....	178
P.1	Introduction	178
P.2	Scope	178
P.3	Definitions	178
P.3.1	Sprinkler, ESFR pattern	178
P.3.2	Suppression mode.....	178
P.3.3	Classification of goods	178
P.3.4	Ceiling height	179
P.3.5	Laced tyre storage	179
P.3.6	Paper categories, based on weight.....	179
P.4	Contract arrangements	179
P.5	General.....	179
P.6	Occupancies and fire hazards.....	180
P.7	Racked, shelved and post pallet storage	180
P.7.1	Longitudinal and transverse flues	180
P.7.2	Shelving	181
P.7.3	In-rack sprinklers for ESFR systems	181
P.7.4	Design requirements	181
P.8	Building requirements.....	197
P.8.1	Roof or ceiling slope	197
P.8.2	Measures required to correct excessive roof or ceiling slope	197
P.8.3	Ceiling strength.....	198
P.8.4	Sky lights	198
P.8.5	Powered ventilation	198
P.8.6	Walkways and conveyors	200
P.8.7	Sprinkler protection beneath mezzanines	200
P.9	ESFR sprinkler installation design	200
P.9.1	Installation type.....	200
P.9.2	Sprinkler nominal k-factor	200
P.9.3	Temperature ratings thermal sensitivity and colour codings	200
P.9.4	ESFR sprinkler location relative to obstructions at or near the ceiling or roof	201
P.10	Pipe sizing	202
P.10.1	General.....	202
P.10.2	Minimum pipe sizes	202
P.10.3	Minimum ESFR sprinkler flow pressure.....	202

P.10.4	The number of sprinklers assumed to be operating	202
P.10.5	Shape of design sprinkler area	203
P.10.6	Sprinklers beneath obstructions	203
P.11	Sprinkler spacing and location	203
P.11.1	ESFR sprinkler area of coverage	203
P.11.2	Obstructions	203
P.11.3	Sprinkler positioning relative to roof and ceilings	204
P.11.4	Sprinkler orientation relative to the floor or pipework	204
P.11.5	Clear space below sprinklers	204
P.11.6	Sprinkler location relative to draught or smoke curtains	204
P.11.7	Positioning of ESFR sprinklers relative to draught or smoke curtains	204
P.11.8	ESFR sprinkler protection adjacent to areas protected by standard sprinklers	204
P.12	Water supplies	205
P.12.1	Pump drive and power arrangements	205
P.12.2	Pump selection	205
P.12.3	Duration	205
Bibliography	206

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FprEN 12845:2014 (E)**Foreword**

This document (FprEN 12845:2014) 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 Unique Acceptance Procedure.

This document will supersede EN 12845:2004+A2:2009.

Annexes A to I and Annexes N and P are normative. Annexes J to M and Annex O are informative. This document includes a Bibliography.

It is included in a series of European standards planned to cover:

- automatic sprinkler systems (EN 12259);
- gas extinguishing systems (EN 12094);
- powder systems (EN 12416);
- explosion protection systems (ISO 6184);
- foam systems (EN 13565);
- gas systems (EN 12094);
- hydrant and hose reel systems (EN 671);
- smoke and heat control systems (EN 12101).

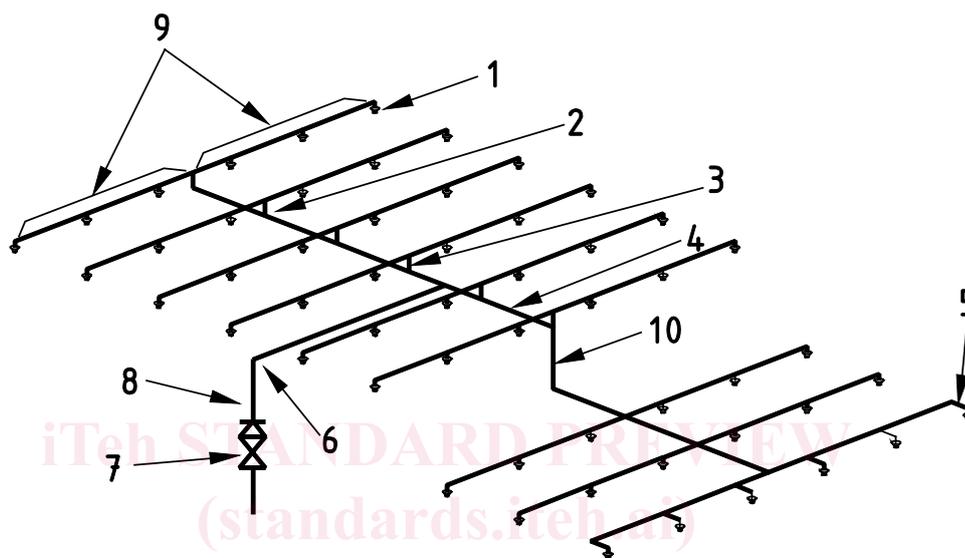
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Introduction

An automatic sprinkler system is designed to detect a fire and extinguish it with water in its early stages or hold the fire in check so that extinguishment can be completed by other means.

A sprinkler system consists of a water supply (or supplies) and one or more sprinkler installations; each installation consists of a set of installation main control valves and a pipe array fitted with sprinkler heads. The sprinkler heads are fitted at specified locations at the roof or ceiling, and where necessary between racks, below shelves, and in ovens or stoves. The main elements of a typical installation are shown in Figure 1.



Key

1	sprinkler head	6	main distribution pipe
2	riser	7	control valve set
3	design point	8	riser
4	distribution pipe spur	9	range pipes
5	arm pipe	10	drop

Figure 1 — Main elements of a sprinkler installation

The sprinklers operate at predetermined temperatures to discharge water over the affected part of the area below. The flow of water through the alarm valve initiates a fire alarm. The operating temperature is generally selected to suit ambient temperature conditions.

Only sprinklers in the vicinity of the fire, i.e. those which become sufficiently heated, operate.

The sprinkler system is intended to extend throughout the premises with only limited exceptions.

It should not be assumed that the provision of a sprinkler system entirely obviates the need for other means of fighting fires and it is important to consider the fire precautions in the premises as a whole.

Structural fire resistance, escape routes, fire alarm systems, particular hazards needing other fire protection methods, provision of hose reels and fire hydrants and portable fire extinguishers, etc., safe working and goods handling methods, management supervision and good housekeeping all need consideration.

It is essential that sprinkler systems should be properly maintained to ensure operation when required. This routine is liable to be overlooked or given insufficient attention by supervisors. It is, however, neglected at peril