

**SINGAPORE STANDARD**

# **Code of practice for automatic fire sprinkler system**

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**Code of practice for automatic fire sprinkler system**

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**Contents**

	<b>Page</b>
Foreword _____	9

**CLAUSES**

1	Scope _____	11
2	Definitions _____	11
3	Classes of sprinkler system and design data _____	17
4	Installation _____	33
5	Water supplies _____	38
6	Spacing and location of sprinklers _____	67
7	Sprinklers, sprayers and multiple controls _____	79
8	Piping _____	82
9	Valves and ancillary equipment _____	91
10	Light hazard class systems _____	100
11	Ordinary hazard class systems _____	102
12	High hazard class systems _____	112
13	Full hydraulic calculation of sprinkler systems _____	128

**ANNEXES**

A	Orifice plates _____	172
B	Pipework interpretations _____	175
C	Maintenance _____	178

**TABLES**

1	Maximum floor area for dry pipe systems _____	28
2	Design densities of discharge and assumed areas of operation for standard sprinkler systems _____	31
3	Appropriate suction pipe sizes _____	41
4	Minimum depth of water and width of open channels and weirs for corresponding inflows _____	43
5	Performance characteristics for automatic pumps drawing from pump suction tanks ____	48
6	Pressure loss for medium tubes to SS 17 _____	66
7	Value of K for steel tubes to SS 17 _____	66
8	Sprinkler distances from beams and joists _____	69
9	Distance from sidewall sprinklers to beams _____	70
10	Sprinkler K factors, orifice and thread sizes _____	80

	<b>Page</b>
11	Colour coding of sprinklers _____ 81
12	Verification test loads _____ 91
13	Guide to sizes for pipes and associated components in pumpsets _____ 95
14	Performance characteristics for automatic pumps drawing from pump suction tanks ____ 101
15	Pressure/Flow requirements for ordinary hazard class systems _____ 103
16	Water storage capacity for ordinary hazard class systems _____ 104
17	Performance characteristics for automatic pumps drawing from pump suction tanks ____ 106
18	Maximum number of sprinklers on pre-calculated piping _____ 109
19(A)	Pressure losses for medium tubes to SS 17 _____ 110
19(B)	Pressure losses for medium tubes to SS 17 – Ordinary hazard _____ 110
20	Discharge density and assumed area of operation for process risks _____ 113
21(A)	Discharge density and assumed area of operation for high piled storage risks involving free-standing storage or block stacking where ceiling or roof protection is provided ____ 114
21(B)	Discharge density and assumed area of operation for high piled storage risks involving post or box pallets (in single or double rows) or palletised rack storage where roof or ceiling protection only is provided _____ 114
22	Discharge density and assumed area of operation at ceiling for bonded stores (spirituous liquors) rack storage _____ 118
23	Pressure/Flow requirements for high hazard class systems _____ 119
24	Water storage capacity for high hazard class systems _____ 121
25(A)	Maximum number of sprinklers on pre-calculated piping for design densities of discharge not exceeding 15 mm/min _____ 124
25(B)	Maximum number of sprinklers on pre-calculated piping for design densities of discharge not exceeding 15 mm/min _____ 125
25(C)	Maximum number of sprinklers on pre-calculated piping for design densities of discharge up to 30 mm/min _____ 126
26	Pressure losses for medium tubes to SS 17 _____ 127
27	Design roughness coefficients _____ 133
28	Mean internal diameters and values of K for steel tube to AS 1074 _____ 133
29	Mean internal diameters and values of K for steel tube to AS 1432 _____ 134
30	Equivalent pipe lengths for fittings and valves (applicable to Hazen-Williams C value of 120 only) _____ 135
31	Orifice plates for pipes of sizes 50 and 65 for a flow rate of 500 L/min _____ 173
32	Orifice plates for pipes of sizes 80, 100, 150 and 200 for a flow rate of 5000 L/min ____ 173
33	Orifice plate thickness _____ 174

## **FIGURES**

1	Typical end-centre arrangements _____ 137
2	Typical end-side arrangements _____ 137
3	Typical ordinary hazard class system _____ 138

	<b>Page</b>
4	Piping terms used in Figure 7 _____ 139
5	Arrangement of supply piping and valves, tall-end freeing solution system _____ 139
6	Symbols used in Figure 7 _____ 140
7	Typical water supplies _____ 141
8	Effective capacity of pump suction tanks _____ 143
9	Vortex inhibitors _____ 144
10	Minimum dimensions for supplies from inexhaustible source _____ 145
11	Typical pressure switch test arrangement _____ 146
12	Typical layout for proving water supplies _____ 146
13	Typical flow-measuring devices _____ 147
14	Standard spacing _____ 148
15	Staggered spacing _____ 148
16(a)	Sprinkler distances from beams and joists _____ 149
16(b)	Conventional sprinklers installed upright _____ 149
16(c)	Spray sprinklers (upright and pendent types) and conventional sprinklers installed pendent _____ 150
17	Typical grain elevator _____ 151
18	Bag type dust receiver _____ 152
19	Machines in tiers _____ 152
20	Typical pipe support components _____ 153
21	Typical method of support for long span _____ 155
22	Typical remote test valve _____ 156
23	Intermediate level protection _____ 157
24(a)	Typical bonded stores (spirituous liquors) – double storage rack _____ 159
24(b)	Typical bonded stores (spirituous liquors) – continuous racking _____ 160
25(a)	Typical extra high hazard class system pipe sizes based on Table 25(A) _____ 161
25(b)	Typical extra high hazard class system pipe sizes based on Table 25(B) _____ 162
25(c)	Typical extra high hazard class system pipe sizes based on Table 25(C) _____ 163
26	Determination of area covered per sprinkler _____ 164
27(a)	Typical hydraulically most favourable and most unfavourable areas of operation in a terminal main system with terminal range pipes _____ 165
27(b)	Hydraulic design of most unfavourable area of operation assuming 20 mm/min minimum discharge density over 260 m <sup>2</sup> _____ 166
27(c)	Typical hydraulically most favourable and most unfavourable areas of operation in a terminal looped system with terminal range pipes _____ 167
27(d)	Hydraulic design of most unfavourable area of operation assuming 20 mm/min minimum discharge density over 260 m <sup>2</sup> _____ 168
27(e)	Typical hydraulically most favourable and most unfavourable areas of operation in a gridded system _____ 169
27(f)	Hydraulic design of most unfavourable area of operation assuming 20 mm/min minimum discharge density of over 260m <sup>2</sup> _____ 170



	<b>Page</b>
28	Illustration of installation notice _____ 171
29	Ordinary and extra high hazard – armpieces and risers (or drops) _____ 175
30	Ordinary and extra high hazard – armpieces and risers (or drops) _____ 176
31	Ordinary and extra high hazard – armpieces and risers (or drops) _____ 177

## Foreword

This Code of Practice was prepared by the Technical Committee on Building Services under the purview of the Building and Construction Standards Committee (BCSC).

This code is intended to provide good guidance on design, installation, commissioning and maintenance of automatic fire sprinkler systems.

Automatic fire sprinkler systems will not be regarded as complying with these recommendations unless the installation is designed and supervised by professional engineers recognised by the relevant authority as being in this class of work.

In this revision, new clauses were added and existing ones reviewed to bring the code in line with the latest in sprinkler systems concept and technology.

The following main topics were introduced:

- a) Disallowing the use of suction lift pumps;
- b) Incorporating the special sprinkler systems, e.g. ESFR, large drop and deluge sprinkler systems;
- c) Vortex inhibitor;
- d) Remote test valve;
- e) System component fault monitoring;
- f) Location of sprinkler control valve;
- g) Protection against exposure hazard; and
- h) Full hydraulic calculations.

The following changes were made:

- a) Including more definitions;
- b) Revising the criteria of defining the limit to a single sprinkler installation to area of protection instead of number of sprinklers;
- c) Updating the list of hazard classification to follow closely to AS standards;
- d) Renaming of hazard classification;
- e) Revising the submission procedures for water services for the sprinkler systems;
- f) Removing re-cycling pre-action sprinkler system;
- g) Revising requirements of pump sets;
- h) Revising requirements for water alarm gong;
- i) Revising exemption list for non provision of sprinkler; and
- (j) Increasing maximum spacing between sprinklers for ordinary hazard group.

In preparing this code, reference was made to the following publications:

- a) AS 2118: 1999 Code for automatic fire sprinkler systems
- b) AS 4118: 1996 Code for components of automatic fire sprinkler systems
- c) AS 2941: 1995 Code for fixed fire protection installation – Pumpset systems
- d) NFPA 13: 1999 Installation of sprinkler systems
- e) NFPA 20: 1999 Installation of stationary pumps for fire protection
- f) Fire Precautions for Buildings 2002

Acknowledgement is made for the use of the information from the above references.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

**NOTE**

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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## **Code of practice for automatic fire sprinkler system**

### **1 Scope**

This code sets out requirements for the installation of automatic sprinkler systems in buildings. It also provides for occupancy classification.