

Table 9.7: Automatic Sprinkler System Requirements

ITEMS	REQUIREMENTS
35. DESIGN CRITERIA FOR CLASS I TO IV STORED IN SINGLE OR DOUBLE ROW RACKS WITH STORAGE HEIGHT OF 3.7 M TO 6.1 M (WITHOUT SOLID SHELVES)	<p>i. The automatic Sprinkler Design Criteria for Class I to IV stored in Single or Double row racks with storage height of 3.7 m to 6.1 m (Without Solid Shelves), shall be as per Table 9.7.O.</p> <p>ii. The area of sprinkler operation shall be 186 m² except for below.</p> <p>a. The area of sprinkler operation shall be 215 m² for design density 0.55 (22.4), AMAO-(Assumed Maximum Area of Operation) for high temperature sprinklers.</p> <p>b. The area of sprinkler operation shall be 370 m² for design density 0.55 (22.4), ordinary temperature</p> <p>iii. Figure 9.22 is applicable for all design criteria in Table 9.7.O, except where in-rack sprinkler requirement is mandatory.</p> <p>iv. The fire pump capacity indicated is for high temperature ceiling sprinkler and storage height of 6.1 m.</p>

Table 9.7.O: Class I to Class IV stored on racks without solid shelves with storage height 3.7 m—6.1 m

AISLE WIDTH & ENCAPSULATION	COM-MODITY CLASS	IN RACK SPRINKLERS	CEILING SPRINKLER DESIGN DENSITY , Gpm/ft ² (mm/min)					
			WITH IN RACK SPRINKLERS		WITHOUT IN RACK SPRINKLERS			
			SINGLE OR DOUBLE ROW RACKS		SINGLE OR DOUBLE ROW RACKS			
			HIGH TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	ORDINARY TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	HIGH TEMPERATURE CEILING SPRINKLERS	ORDINARY TEMPERATURE CEILING SPRINKLERS	PUMP CAPACITY WITH HOSE DEMAND	PUMP CAPACITY WITH YDRANTS
1.2 M ENCAPSULATED	I	No Need			0.55 (22.4)	0.55 (22.4)	1250 gpm	2000 gpm
	II	No Need			0.55 (22.4)	0.55 (22.4)	1250 gpm	2000 gpm
	III	1 LEVEL	0.35 (14.3)	0.39 (15.9)	---	---	1000 gpm	1500 gpm
	IV	1 LEVEL	0.47 (19.1)	0.55 (22.4)	---	---	1250 gpm	1500 gpm
1.2 M NOT ENCAPSULATED	I	No Need			0.32 (13.0)	0.37 (15.0)	750 gpm	1250 gpm
	II	No Need			0.38 (15.5)	0.44 (17.9)	750 gpm	1250 gpm
	III	No Need			0.43 (17.5)	0.49 (20.0)	1000 gpm	1250 gpm
	IV	No Need			0.58 (23.6)	0.60 (24.5)	1250 gpm	1500 gpm
2.4 M ENCAPSULATED	I	No Need			0.47 (19.1)	0.54 (22.0)	1000 gpm	1500 gpm
	II	No Need			0.47 (19.1)	0.54 (22.0)	1000 gpm	1500 gpm
	III	1 LEVEL	0.28 (11.4)	0.32 (13.0)	---	---	750 gpm	1250 gpm
	IV	1 LEVEL	0.39 (15.9)	0.45 (18.3)	---	---	1000 gpm	1500 gpm
2.4 M NOT ENCAPSULATED	I	No Need			0.29 (11.8)	0.33 (13.4)	750 gpm	1000 gpm
	II	No Need			0.32 (13.0)	0.37 (15.0)	750 gpm	1250 gpm
	III	No Need			0.37 (15.0)	0.42 (17.1)	750 gpm	1250 gpm
	IV	No Need			0.49 (20.0)	0.57 (23.2)	1000 gpm	1500 gpm