

Table 9.7: Automatic Sprinkler System Requirements

ITEMS	REQUIREMENTS
40. DESIGN CRITERIA FOR CLASS I TO IV STORED IN MULTIPLE ROW RACKS OF 4.9 M DEPTH AND AISLES 2.4 M NARROWER AND WIDER WITH STORAGE HEIGHT OF 6.1 M TO 7.6 M.	<p>i. The automatic Sprinkler Design Criteria for Class I to IV stored in Multiple row racks of 4.9 m depth and aisles 2.4 m or wider with storage height of 6.1 m to 7.6 m shall be as per Table 9.7.U. with Area of sprinkler operation of 2000 ft² (186m²)</p> <p>ii. The automatic Sprinkler Design Criteria for Class I to IV stored in Multiple row racks of 4.9 m depth and aisles narrower than 2.4 m with storage height of 6.1 m to 7.6 m shall be as per Table 9.7.V. with Area of sprinkler operation of 2000 ft² (186m²)</p> <p>iii. Figure 9.22 is applicable only for design criteria where in-rack sprinklers are not required.</p> <p>iv. The fire pump capacities indicated is for high temperature ceiling sprinkler for storage height of 4.6 m to 7.6 m.</p>

Table 9.7.U: Class I-Class IV stored on racks of 4.6 m depth, aisle 2.4 m or wider, height of 6.1 m-7.6 m

HEIGHT	COM-MODITY CLASS	ENCAP-SULATION	IN RACK SPRINKLERS	CEILING SPRINKLER WATER DEMAND , Gpm (LPM)					
				WITH IN RACK SPRINKLERS		WITHOUT IN RACK SPRINKLERS			
				MULTIPLE ROW RACKS		MULTIPLE ROW RACKS			
				HIGH TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	ORDINARY TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE	HIGH TEMPERATURE CEILING SPRINKLERS	ORDINARY TEMPERATURE CEILING SPRINKLERS	PUMP CAPACITY WITH HOSE DEMAND	PUMP CAPACITY WITH HYDRANTS
Over 20 ft. (6.1 m) up to 25 ft. (7.6 m)	I	No	No Need			0.37 (15.1)	0.41 (16.7)	1250 gpm	2000 gpm
		Yes	1 Level	0.29 (11.7)	0.33 (13.2)	N/A	N/A	750 gpm	1250 gpm
	II	No	1 Level	0.26 (10.6)	0.30 (12.2)			750 gpm	1250 gpm
		Yes		0.33 (13.2)	0.38 (15.2)			1000 gpm	1250 gpm
	III	No		0.29 (11.7)	0.33 (13.2)			750 gpm	1250 gpm
		Yes		0.36 (14.6)	0.41 (16.7)			1000 gpm	1500 gpm
	IV	No		0.39 (15.7)	0.44 (17.9)			1250 gpm	1500 gpm
		Yes	2 Levels	0.48 (19.5)	0.56 (22.6)			1500 gpm	2000 gpm

Table 9.7.V: Class I-Class IV stored on racks of 4.6 m depth, Aisle less than 2.4 m, Height of 6.1 m-7.6 m

HEIGHT	COM-MODITY CLASS	ENCAP-SULATION	IN RACK SPRINKLERS	CEILING SPRINKLER WATER DEMAND , Gpm (LPM)			
				WITH IN RACK SPRINKLERS			
				MULTIPLE ROW RACKS			
				HIGH TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	ORDINARY TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	PUMP CAPACITY WITH HOSE DEMAND	PUMP CAPACITY WITH HYDRANTS
Over 20 ft. (6.1 m) up to 25 ft. (7.6 m)	I	No	1 Level	0.23 (9.3)	0.26 (10.6)	750 gpm	1250 gpm
		Yes		0.29 (11.7)	0.33 (13.2)	750 gpm	1250 gpm
	II	No		0.26 (10.6)	0.30 (12.2)	750 gpm	1250 gpm
		Yes		0.33 (13.2)	0.38 (15.2)	1000 gpm	1250 gpm
	III	No		0.29 (11.7)	0.33 (13.2)	750 gpm	1250 gpm
		Yes		0.36 (14.6)	0.41 (16.7)	1000 gpm	1500 gpm
	IV	No	2 Levels	0.39 (15.7)	0.44 (17.9)	1250 gpm	1500 gpm
		Yes		0.58 (23.6)	0.66 (26.9)	1500 gpm	2000 gpm