

Table 9.27.: Storage, Warehouse and Industrial Fire Protection Systems

PREDOMINANT OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
I. SINGLE TENANT INDUSTRIES, AND FACTORIES (EXTRA HAZARD, GROUP 1 CATEGORY ACTIVITIES AS PER DEFINITION 1.1.13.4.a.)	<u>1. IF TOTAL GROUND FLOOR BUILT-UP AREA IS LESS THAN 3600 m²</u> i. Sprinklers shall be provided throughout the facility as per Section 3.5. ii. The sprinkler design density shall be 0.30 gpm with area of sprinkler operation of 2500 ft ² (232 m ²). iii. Where activity and material MSDS demands foam sprinkler system, Foam Sprinklers shall be provided throughout the facility as per Section 3.9. iv. Hose Reel System shall be provided throughout the building as per Section 3.3. Dry landing valves shall not be required.	<u>1. IF TOTAL GROUND FLOOR BUILT-UP AREA IS LESS THAN 3600 m²</u> v. The capacity of the fire pump set shall be 750 gpm at pressure as required to satisfy 4.5 bar at the most remote Hose reel outlet valve. vi. The water tank shall have capacity of 60 minutes of operation, complete with low water level detection and instantaneous refilling arrangement.
	<u>2. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m²</u> i. Sprinklers shall be provided throughout the facility as per Section 3.5. ii. Sprinkler design density shall be 0.30 gpm with an area of sprinkler operation of 2500 ft ² (232 m ²). iii. Where activity and material MSDS demands foam sprinkler system, Foam Sprinklers shall be provided throughout the facility as per Section 3.9. iv. Yard Fire Hydrants shall be provided as per Section 3.11. , in a loop to cover the entire facility. v. Hose Reel System shall be provided throughout the building as per Section 3.3. vi. A dry riser and wet riser System shall not be required.	<u>2. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m²</u> vii. The capacity of the fire pump set shall be 1250 gpm at a pressure as required to satisfy 6.9 bar at the most remote landing valve. viii. The water tank shall have a capacity of 90 minutes of operation, complete with low water level detection, dedicated direct breeching inlet and instantaneous refilling arrangement.