

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

OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
S. INDUSTRIAL OCCUPANCY INVOLVING PROCESSES, ACTIVITIES THAT HANDLE FLAMMABLE AND COMBUSTIBLE LIQUIDS (EXCEPT HANGER)	<u>1. IF TOTAL BUILT-UP FLOOR AREA OF THE COMPARTMENT IS LESS THAN 230 m²</u> <ul style="list-style-type: none"> i. Hose Reel System shall be provided throughout the building as per Section 3.2. and Section 3.3. ii. Dry landing valves and risers shall not be required. 	<u>1. IF TOTAL BUILT-UP FLOOR AREA OF THE COMPARTMENT IS LESS THAN 230 m²</u> <ul style="list-style-type: none"> iii. The fire pump capacity shall be 50 gpm at a pressure of 4.5 bar available at the remote Hose reel valve. iv. The water tank shall have a capacity of 45 minutes of operation, complete with low water level detection and instantaneous refilling arrangement.
	<u>2. IF TOTAL BUILT-UP FLOOR AREA OF THE COMPARTMENT IS 230 m²—900 m²</u> <ul style="list-style-type: none"> i. Foam Sprinklers shall be provided throughout the facility as per Section 3.9. ii. The foam sprinkler Design criteria shall be as per as per Table 9.11.C. iii. Hose Reel System shall be provided throughout the building as per Section 3.3. Hose system shall also incorporate the foam application. Dry landing valves shall not be required. 	<u>2. IF TOTAL BUILT-UP FLOOR AREA OF THE COMPARTMENT IS 230 m²—900 m²</u> <ul style="list-style-type: none"> iv. The capacity of the fire pump set shall be as per 9.11.C. at pressure as required to satisfy 4.5 bar at the most remote Hose reel valve. v. The water tank shall have a capacity of 120 minutes of operation, complete with low water level detection, direct breeching inlet and instantaneous refilling arrangement. vi. The foam solution reserve shall be for 15 minutes operation.
	<u>3. IF TOTAL BUILT-UP FLOOR AREA IS 901 m² - 3600 m²</u> <ul style="list-style-type: none"> i. Foam Sprinklers shall be provided throughout the facility as per Section 3.9. ii. The foam sprinkler Design criteria shall be as per as per Table 9.11.C. iii. Hose Reel System shall be provided throughout the building as per Section 3.3. The hose system shall also incorporate foam application. Dry landing valves shall not be required. 	<u>3. IF TOTAL BUILT-UP FLOOR AREA IS 901 m² - 3600 m²</u> <ul style="list-style-type: none"> iv. The capacity of the fire pump set shall be as per 9.11.C. at a pressure as required to satisfy 6.9 bar at the most remote hose reel valve. v. The water tank shall have a capacity of 120 minutes of operation, complete with low water level detection, direct breeching inlet and instantaneous refilling arrangement. vi. The foam solution reserve shall be for a 15 minutes operation.
	<u>4. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m²</u> <ul style="list-style-type: none"> i. Foam Sprinklers shall be provided throughout the facility as per Section 3.9. ii. The foam sprinkler Design criteria shall be as per as per Table 9.11.C. iii. Yard Fire Hydrants shall be provided as per Section 3.11., in a loop to cover the entire facility. Where foam sprinklers are provided, hydrant system shall also incorporate foam discharge. iv. Hose Reel System shall be provided throughout the building as per Section 3.3. v. A dry riser and wet riser System shall not be required. 	<u>4. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m²</u> <ul style="list-style-type: none"> vi. The capacity of the fire pump set shall be as per 9.11.C. at pressure as required to satisfy 6.9 bar at the most remote hydrant valve. vii. The water tank shall have capacity of 120 minutes of operation, complete with low water level detection, direct breeching inlet and instantaneous refilling arrangement. viii. The foam solution reserve shall be for 15 minutes operation.