

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

PREDOMINANT OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
<b>K. WAREHOUSE</b>  <b>IDLE WOODEN AND PLASTIC PALLETS</b>	<b><u>1. IF TOTAL BUILT-UP GROUND FLOOR AREA IS LESS THAN 900 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>i. Hose Reel System shall be provided throughout the building as per <b>Section 3.3</b>.</li> <li>ii. Dry landing valves and risers shall not be required.</li> </ul>	<b><u>1. IF TOTAL BUILT-UP GROUND FLOOR AREA IS LESS THAN 900 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>iii. The fire pump capacity shall be 50 gpm at pressure of 4.5 bar available at the remote Hose reel valve.</li> <li>iv. Water tank shall have capacity of 45 minutes of operation, complete with low water level detection and instantaneous refilling arrangement.</li> </ul>
	<b><u>2. IF TOTAL BUILT-UP GROUND FLOOR AREA IS 900 m<sup>2</sup> - 3600 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>i. Sprinklers shall be provided throughout the facility as per <b>Section 3.5</b>.</li> <li>ii. The sprinkler design density shall be as per storage height and arrangement, in accordance with <b>Table 9.7.G., P.7.H., 9.7.I., Table 9.7.J., Table 9.7.K., Table 9.7.L.</b></li> <li>iii. Hose Reel System shall be provided throughout the building as per <b>Section 3.3</b>. Dry landing valves shall not be required.</li> </ul>	<b><u>2. IF TOTAL BUILT-UP GROUND FLOOR AREA IS 900 m<sup>2</sup> - 3600 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>iv. The capacity of the fire pump set shall be as per storage height and arrangement, in accordance with <b>Table 9.7.G., P.7.H., 9.7.I., Table 9.7.J., Table 9.7.K., Table 9.7.L.</b>, at pressure as required to satisfy 4.5 bar at the most remote hose reel valve.</li> <li>v. The water tank shall have capacity of 60 minutes of operation, complete with low water level detection, dedicated direct breaching inlet and instantaneous refilling arrangement.</li> </ul>
	<b><u>3. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>i. Sprinklers shall be provided throughout the facility as per <b>Section 3.5</b>.</li> <li>ii. The sprinkler design density shall be as per storage height and arrangement, in accordance with <b>Table 9.7.G., P.7.H., 9.7.I., Table 9.7.J., Table 9.7.K., Table 9.7.L.</b></li> <li>iii. Yard Fire Hydrants shall be provided as per <b>Section 3.11.</b>, in a loop to cover the entire facility.</li> <li>iv. Hose Reel System shall be provided throughout the building as per <b>Section 3.3</b>.</li> <li>v. A dry riser and wet riser System shall not be required.</li> </ul>	<b><u>3. IF SUM OF ALL GROUND FLOOR BUILT-UP AREAS IS MORE THAN 3600 m<sup>2</sup></u></b> <ul style="list-style-type: none"> <li>vi. The capacity of the fire pump set shall be as per storage height and arrangement, in accordance with <b>Table 9.7.G., P.7.H., 9.7.I., Table 9.7.J., Table 9.7.K., Table 9.7.L.</b>, at pressure as required to satisfy 6.9 bar at the most remote Hydrant valve.</li> <li>vii. The water tank shall have capacity of 60 minutes of operation, complete with low water level detection, dedicated direct breaching inlet and instantaneous refilling arrangement.</li> </ul>