

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

OCCUPANCY	SYSTEM REQUIREMENTS	COMBINED FIRE PUMP SET AND FIRE WATER TANK CAPACITIES
Q. AIRCRAFT HANGERS	<b>1. GROUP I AIRCRAFT HANGERS</b> <u>(Access door height over 8.5 m/A single fire area is in excess of 3716 m<sup>2</sup>)</u>	<b>1. GROUP I AIRCRAFT HANGERS</b> <u>(Access door height over 8.5 m/A single fire area is in excess of 3716 m<sup>2</sup>)</u>
	<ul style="list-style-type: none"> <li>i. A foam water deluge system shall be provided for the hanger as per <b>Section 3.9</b> and <b>Table 9.11</b>.</li> <li>ii. The foam discharge density shall be a minimum of 0.16 gpm/ft<sup>2</sup></li> <li>iii. The area of operation under a single foam water deluge system shall not exceed 1394 m<sup>2</sup> (15,000ft<sup>2</sup>).</li> <li>iv. The maximum distance between sprinklers/open discharge devices either on branch line or between branch line shall not exceed 3.7 m.</li> <li>v. If the open door of the hanger interferes in the intended discharge pattern, additional sprinkler/open discharge devices heads shall be installed near the door.</li> <li>vi. Sprinklers/open discharge devices of different orifice sizes and plates shall not be used.</li> <li>vii. A foam water hand hose system shall be installed throughout the hanger as per <b>Table 9.11.13</b>. with design densities as appropriate as per <b>Table 9.11.C</b>.</li> <li>viii. Each hand hose connection shall be a minimum of 38 mm (1 1/2 in.) in size and fitted with a control valve. The hose shall be of a diameter to provide a minimum flow of 60 gpm.</li> <li>ix. Standard Sprinklers shall be provided at office, tool rooms and non-service and non aircraft storage area as per <b>Section 3.5</b>.</li> <li>x. Yard Fire Hydrants shall be provided as per <b>Section 3.11</b>, in a loop to cover the entire hanger or group of hangers.</li> <li>xi. A dry riser, wet riser and hose Reel system shall not be required.</li> </ul>	<ul style="list-style-type: none"> <li>xii. The capacity of the fire pump set shall be 3000 gpm at a pressure as required to satisfy 6.9 bar at the most remote yard hydrant outlet valve. However, the fire pump capacity might increase depending on the zone and fire area considerations which are dependent on the aircraft size.</li> <li>xiii. The water tank shall have a capacity of 60 minutes of operation, complete with low water level detection and instantaneous refilling arrangement.</li> <li>xiv. The foam concentrate shall be for a minimum of 10 minute duration.</li> </ul>