Table 9.7: Automatic Sprinkler System Requirements

ITEMS	REQUIREMENTS
15. INSPECTOR TEST VALVE	i. An approved alarm test valve shall be provided in each sectional or floor zone control valve assembly on the downstream side of the water flow switch. The test valve shall be not less than 25 mm of diameter in size and shall have an orifice diameter to give a flow equal to or less than one sprinkler of a type having the smallest orifice installed on the particular system to test each water flow alarm device for each system. ii. The inspectors test valve shall be located at an easily accessible & visible location with an identification sign board in a visible location in both Arabic & English. iii. Where the test valve is located in a closed room, shaft access door or panel, it shall be provided with an identification sign board in a visible location in both Arabic & English.
16. DRAINS	i. The complete sprinkler system piping shall be designed and installed in such a way that the entire water can be drained. ii. A main drain valve shall be installed on each sprinkler system main riser on the down stream side of an Alarm Check valve. The system main drain valve can be a part of an alarm check valve. iii. The size of the main drain valve (alarm check valve) shall not be less than 50mm in diameter. Auxiliary drains shall be provided where a change in piping direction prevents the drainage of the system piping through the main drain valve. iv. In addition, where the sectional zone or floor control valve is provided, it shall be equipped with a drain connection having a minimum size not less than 25 mm in diameter to drain that portion of the system controlled by the sectional valve. A listed and approved combined test & drain valve is permitted to be used in the sectional or floor zone control valve assembly. v. The main sprinkler riser drain should discharge to an open drain outside the building at a point free from the possibility of causing water damage. Where it is not possible to discharge the building wall outside, the drain should be piped to a sump, which in turn should discharge by gravity or be pumped to a waste water drain or sewer. The main sprinkler riser drain connection should be of a size sufficient to carry off water from the fully open drain valve while it is discharging under normal water system pressures. Where this is not possible, a supplementary drain of equal size should be provided for test purposes with free discharge, located at or above grade. vi. The drain riser may be permitted to terminate back to the fire water tank if the tanks do not serves for domestic use. In such case, the drain discharge shall conform to any health or water department regulations.

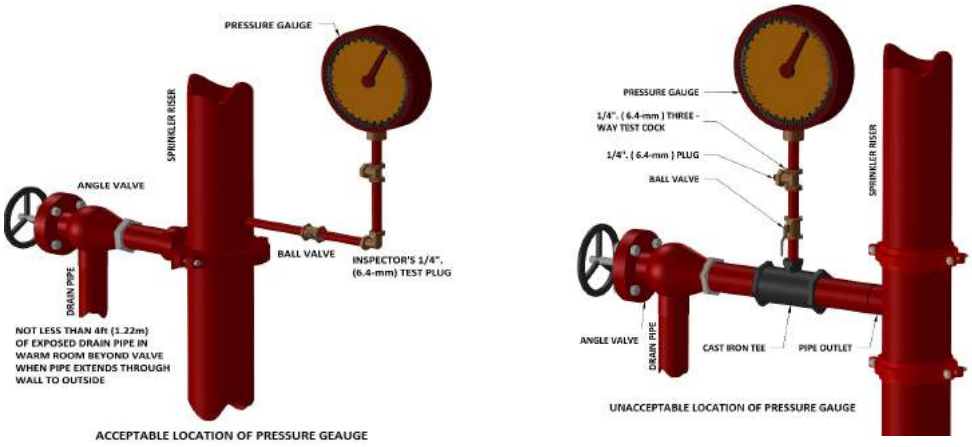

Figure 9.12.: Acceptable and unacceptable Pressure gauge location