

Table 9.3: General Requirements of Water based Fire Protection Systems

ITEMS	REQUIREMENTS
9. ISOLATION OR SECTION CONTROL VALVES	<ul style="list-style-type: none"> i. All the isolation and section control valves installed in the sprinkler system shall be supervised O.S. & Y gate valve or supervised butterfly valves installed with a tamper or supervisory switch connected to the building fire alarm system for monitoring or secured in open position by a padlock or riveted strap unless other wise specified and approved by the Civil Defence. ii. All isolating valves installed in sprinkler system shall be so constructed that in order to shut the valve the spindle must turn clockwise. The hand wheels of all stop valves shall be clearly marked to indicate which direction the wheel is to be turned to close the valve. iii. An indication showing whether the valve is open or shut shall also be provided. iv. An isolation valves shall be installed in each sprinkler riser on upstream side of an alarm check valve such that the isolation of single sprinkler riser will not interrupt the water supply to other sprinkler risers from the same source of supply. v. The valve on downstream side of the flow meter in the fire pump test line shall be a globe type valve for the ease of throttling. vi. The valves of the suction side of fire pumps and water tank outlets shall be O.S.&Y type gate valve only. vii. All the valves shall be rated for the system working pressure and water temperature service and approved by the Civil Defence department. viii. All the isolation / section or floor control valves shall be installed in an easily accessible & visible locations. ix. Isolation and control valves shall be provided with an identification sign board in a visible location in both Arabic & English. x. Where isolation / control valves are located in a closed room or shaft, access door or panel shall be provided with an identification sign board in visible location in both Arabic & English. xi. All the valves shall be rated for the system working pressure and water temperature service, approved by Civil Defence as per Section 6. of this chapter.
10. CHECK VALVE	<ul style="list-style-type: none"> i. All the check valves shall be installed in easily accessible & visible locations. ii. Where there is more than one source of water supply, a check valve shall be installed in each connection. iii. Where sprinklers are installed on two adjacent sides of a building, protecting against two separate and distinct exposures, with separate control valves for each side, the end lines shall be connected with check valves located so that one sprinkler around the corner will operate. The intermediate pipe between the two check valves shall be arranged to drain. iv. A listed backflow prevention device shall be considered a check valve, and an additional check valve shall not be required. v. Where cushion tanks are used with automatic fire pumps, no check valve is required in the cushion tank connection. vi. Check valves shall be installed in a vertical or horizontal position in accordance with their listing. vii. Where a single wet pipe sprinkler system is equipped with a fire department connection, the alarm valve is considered a check valve, and an additional check valve shall not be required. viii. Check valves shall be approved by Civil Defence as per Section 6. of this chapter.