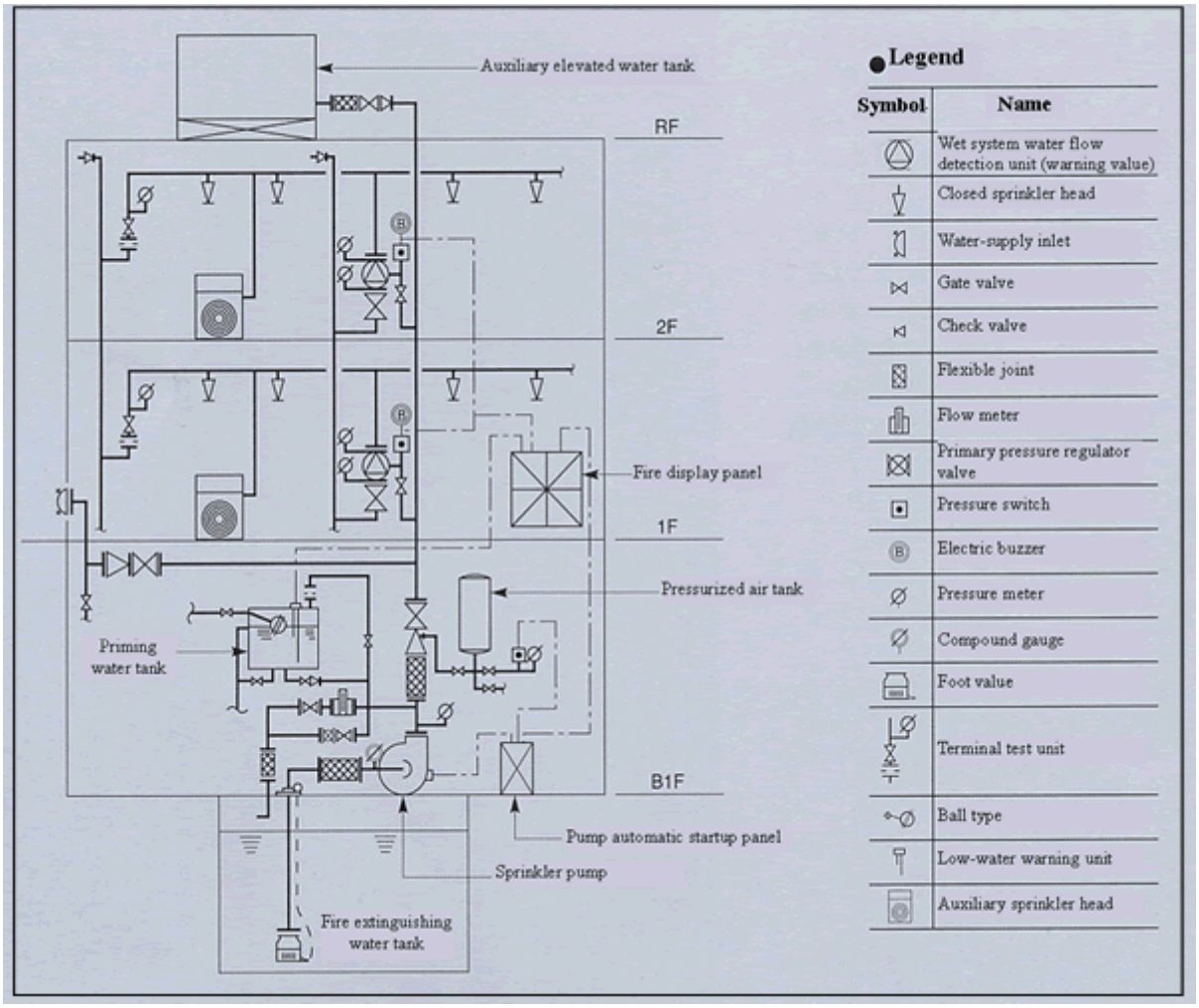
Sprinkler System

Sprinkler systems are the oldest and most widely used type of automatic fire extinguishing systems. When an unforeseen fire starts, these systems immediately and automatically generate a fire alarm and extinguish the fire. The excellent functions of the Company's sprinkler systems have been widely used in high-rise buildings, large stores, factories, and other general structures to protect life and property.

Wet Sprinkler Systems

The pipes are kept filled with pressurized water in order to spray out water as soon as the sprinkler heads open, so this is the most widely used type of system.

Basic System Configuration



Dry Sprinkler System

The dry system water flow detection unit is filled with pressurized water up to the primary side, and the secondary side piping is filled with pressurized air, so when the air pressure in the secondary side drops when a sprinkler head opens, the dry system water flow detection unit opens to release the water. This type of system is used in frigid areas where there is a danger that the pressurized water in the dry system water flow detection unit secondary side piping could freeze.

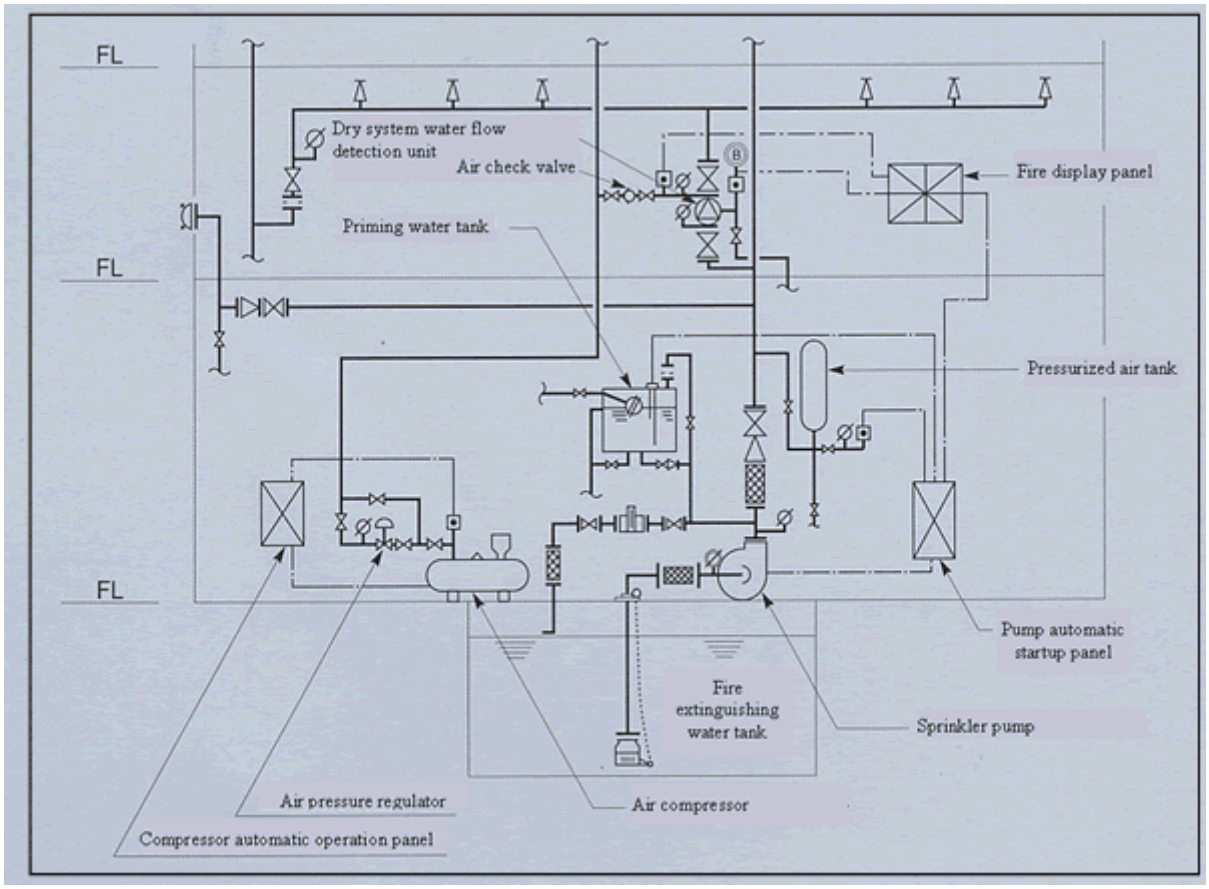
Dry-type sprinkler system design instructions

① The pressurized water supply unit must have the capacity to begin spraying water (taking into consideration the secondary side piping capacity and secondary side set pressure) within one minute no matter which closed sprinkler head is opened.

② The pressurized air source must be able to fill the secondary side piping with dry operation compressed air to the set pressure within 30 minutes.

③ The parts of this system that are filled with water are those that are not in danger of freezing or those for which anti-freezing measures have been taken.

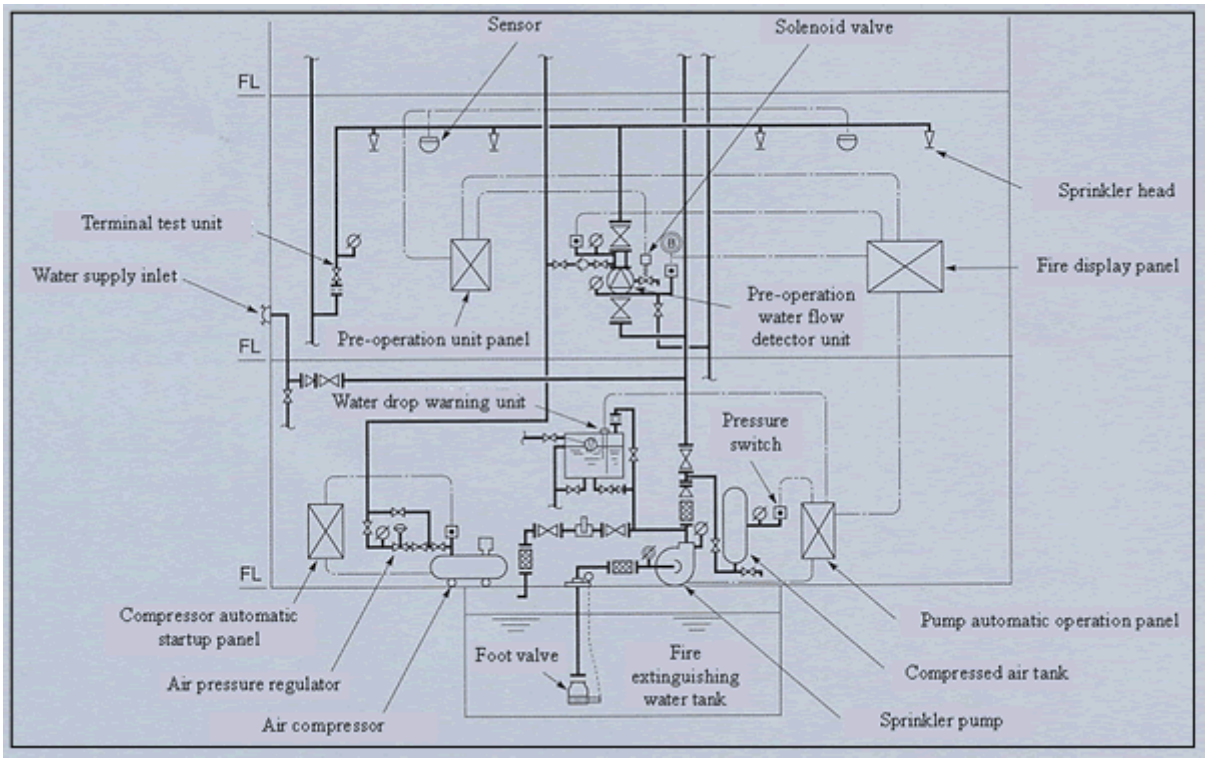
Basic System Configuration



Pre-operation Sprinkler System

The water flow detector unit's primary side is filled with pressurized water and the secondary side piping is filled with compressed air. When a fire occurs, the fire detector uses the fire signal it has caught to first open the pre-operation water flow detector unit to cause the primary side pressurized water to flow to the secondary side. This pressurized water operates the pressure switch, which generates a fire alarm, and the decrease in pressure in the primary side piping causes the pump to operate and begin spraying water when a sprinkler head is opened by a heat sensor. The characteristic of this device is that water will not be sprayed unless both the fire detector and a sprinkler head operate to prevent water from accidentally being sprayed and causes water damage when there is no fire.

Basic System Configuration



Open Sprinkler System

This system uses open sprinkler heads that have no heat sensor disassembly unit, so water is sprayed from all of the sprinkler heads of the separate sprinkler head set when manually operated. This type of system is used when the ceilings are high creating the possibility that the flow of hot air might just open sprinkler heads that are not necessarily directly over the fire source and when there is the danger that a fire would spread rapidly.

Basic System Configuration