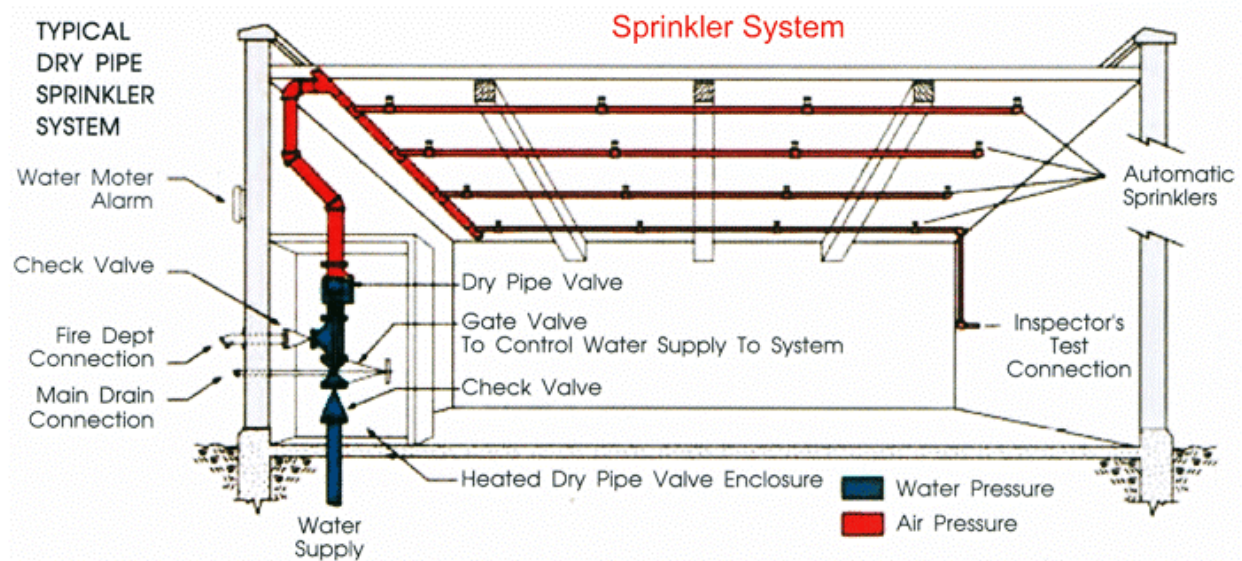


WHAT'S THE DIFFERENCE BETWEEN WET AND DRY SPRINKLERS?

There are two basic types of fire sprinkler systems that we find installed in buildings: wet pipe and dry pipe. The reason for the two types of systems is due to cold conditions and the freezing of water. We find dry pipe systems in areas located outside of enclosed, heated buildings — including loading docks, storage sheds, canopies, and parking garages. Fundamentally, these systems perform the same task, which is to apply water to a fire event involving the building or occupancy. How these systems are activated to apply water is where the main difference lies.

Both systems have valves, piping, and sprinkler heads as the basic elements. In a wet system, the main valve (control valve) plays no real part in the system until you want to shut off the water to the pipes. Water, under pressure, is present in all areas of the piping network. When a sprinkler head is activated or “fused” by heat, the head opens and releases a stream of water. This is analogous to your house where the pipes are all filled with water, but you only get flow when you open a tap.



Here's how dry systems are different. At the Dry Pipe Valve (see diagram) there is a metal flap that divides the two sides of the system (red for air, blue for water). This flap, or “clapper,” is held down by pressurized air in the pipes (like how air pressure in a tire holds up your car's weight). Water does not enter the system under normal conditions.

If there is a fire, the activation of the sprinkler head initially allows only air to leave the system. As the air pressure is lowered, the clapper can no longer hold back the water pressure and the entire pipe network is filled with water and essentially changes to a wet system. Water flows to the open heads and is applied to the fire exactly like a wet system.