

VIKING SYSTEM SPECIFICATIONS

HP[®] DRY PIPE SYSTEM

The fire sprinkler systems installed in areas with temperatures that cannot be reliably maintained above 40°F and the system supply pressure is above 175 PSI shall be a HP dry pipe system. System shall be installed in conformance with the current Edition of N.F.P.A. 13, Standard for Installation of Sprinkler Systems. All materials installed shall adhere to the manufacturer's installation guidelines.

SYSTEM DEVICES

Deluge Valve

HP dry systems shall utilize a 90° pattern type deluge valve. The deluge valve shall be externally resettable by hydraulic means. The deluge valve shall employ a prime shut off valve, which shall provide a positive shutoff to the prime water supply. Inlet and outlet connections of the deluge valve can be flanged by flanged or flanged by grooved, respectfully. The deluge valve shall be UL Listed and Factory Mutual Approved with a ductile iron body. Deluge valve shall have a working pressure up to 250 PSI. Valve trim shall be galvanized, compatible and shall be installed following the manufacturer's specifications. The Deluge Valve manufacturer to be The Viking Corporation. Deluge Valve to be Viking Model E-1.

System Control Valve

The dry system control valve shall be a listed indicating type valve. The control valve shall be UL Listed and Factory Mutual Approved for fire protection installations. The system control valve shall be rated for normal working pressure but in no case less than 175 PSI.

Dry Pendent Sprinklers

(Insert applicable product specification.)

Brass Upright Sprinklers

(Insert applicable product specification.)

Drains

Where the capacity of trapped sections of piping is less than 5 gallons, an auxiliary drain consisting of not less than a ½" valve and plug shall be provided. Where the capacity of trapped sections of piping is more than 5 gallons, a drain consisting of two 1" valves and a 2" by 12" condensate nipple (drum drip) shall be provided.

Compressed Air Supply

The air supply compressor should be sized to establish total required air pressure in 30 minutes. The air supply must be regulated, restricted and maintained automatically. The air supply must be regulated to maintain the pressure desired in the system piping. The air pressure settings shall be in accordance with the manufacturer's instructions. The air supply must be restricted to ensure that the automatic air supply cannot replace air as fast as it escapes when a sprinkler on the system operates.

Float Check Valve

The system shall have a float check valve installed between the anti-flood device and the system riser. The float check valve shall allow air to pass from the system riser to the anti-flood device to set the system. When the system discharges the float check valve closes when water flows to the inlet side of the device, protecting the anti-flood device from water pressure on its inlet and protecting the deluge valve from resetting. Float Check Valve manufacturer to be The Viking Corporation. Float Check to be Viking Model A-1.

Air Compressor

(Insert applicable product specification.)

Air Maintenance Device

Air supplies provided for sprinkler systems shall be equipped with an automatic air pressure maintenance device. The air maintenance device shall be equipped with a ¼" air supply bypass with a field adjustable air pressure regulator with a built-in ball check valve to eliminate air loss when system is in service. The air maintenance device shall have a factory setting of 40 PSI. The Air Maintenance Device manufacturer to be The Viking Corporation. Air Maintenance Device to be Viking Model D-2.

Anti-Flooding Device

Accelerators installed on sprinkler systems shall be equipped with an external anti-flooding device. The anti-flooding device shall be of a brass body. The anti-flooding device shall be UL Listed and Factory Mutual Approved. The Anti-Flooding Device manufacturer to be The Viking Corporation. Anti-Flooding Device to be Viking Model B-1.

Quick Opening Device (Optional)

Where required, the sprinkler system quick opening device shall be a UL Listed and Factory Mutual Approved accelerator with an internal anti-flooding device. The accelerator shall have an air source from a dependable air source regulated through an approved air maintenance device. The accelerator shall be of the same manufacturer as the dry pipe valve or deluge valve and be listed for use together. The Accelerator manufacturer to be The Viking Corporation. Accelerator to be Viking Model D-2.

Pressure Supervisory Switch

Low air pressure alarm will activate by way of a pressure supervisory alarm pressure switch. The low air pressure alarm switch shall be compatible with system devices. The low air pressure alarm switch enclosure shall be UL Listed and Factory Mutual Approved for the application in which it is used. The low air pressure alarm switch shall have the ability to be wired for Class A or Class B service. The Low Air Pressure Alarm Switch shall be Viking, part number 09472 or 09473.

Alarm Pressure Switch

Water flow will activate an alarm by way of an alarm pressure switch. The alarm pressure switch shall be compatible with system devices. The alarm pressure enclosure shall be UL Listed and Factory Mutual Approved. The alarm pressure switch shall have the ability to be wired for Class A or Class B service. The Alarm Pressure Switch shall be Viking, part number 09470 or 09471.

Fire Department Connection

A system fire department connection shall be provided on the system riser in accordance with N.F.P.A. 13, Standard for Installation of Sprinkler Systems. The fire department connection shall be of a brass body with an integral clapper assembly to separate flow between inlets. The fire department connection shall be installed in an area accessible for the first response unit. The fire department connection shall be UL Listed and Factory Mutual Approved for fire protection use.

System Check Valve

Check valves shall be UL Listed and Factory Mutual Approved for use on fire protection systems. The check valves shall be constructed of a ductile iron body with a brass seat and a rubber faced clapper assembly hinged to a removable access cover. The check valves shall be equipped with a removable access cover for periodic inspection as required in N.F.P.A. 25, Standard for Inspection, Testing and Maintenance of Water-Based Fire Protection Systems. The check valves shall have a working water pressure of 250 PSI. Check Valve manufacturer to be The Viking Corporation. Check Valve to be Viking Model D-1 or G-1.

Water Motor Alarm

Water flow will activate a hydraulic powered water motor alarm by way of integral valve alarm line trim piping. The water motor alarm shall be connected to a water pressure retarding chamber to limit the propensity of unnecessary alarms. The water motor alarm shall be equipped with a rear closure plate to limit the access of foreign materials or accumulation of debris. The water motor alarm shall be UL Listed and Factory Mutual Approved for the application in which it is used. The Water Motor Alarm manufacturer to be The Viking Corporation. Water Motor Alarm to be Viking Model F-2.