

## **Dry Pipe Valves**

In buildings where it is impractical to keep temperatures above freezing, automatic sprinkler systems can be equipped with an FM Approved dry pipe valve. The sprinkler piping contains air under pressure, instead of water. When a sprinkler operates, air escapes, the dry pipe valve trips, and water is admitted automatically to the system Dry pipe systems should be installed in accordance with FM Global Loss Prevention Data Sheet 2-8N, Installation of Sprinkler Systems. Additionally, if their use is intended for refrigerated storage, FM Global Loss Prevention Data Sheet 8-29 should be referred to. System calculations regarding required system air capacity should be performed if only one air pressure maintenance device is contemplated for several sprinkler systems.

Dry pipe valves are designed so that a moderate amount of air pressure will hold back a much greater water pressure. In the *differential differential type*, the air pressure holds the water clapper closed either by means of a difference in areas on which the water and air pressures act, or by a combination of this principal with a lever action. In the mechanical type, a clapper on the water seat is held closed by a system of levers which are controlled by a relatively small air clapper.

A suitable alarm is connected to the dry pipe valve so that a warning is given when the valve operates. This may be a mechanical alarm that operates by a hydraulic motor, or a hydraulic pressure switch that closes an electric circuit to operate a bell, horn, or remote signaling system. Unless otherwise noted in the listing, these dry pipe valves have 175 psi (1205 kPa) rated working pressure.

## Model F-1

Model F-1. 3, 4, 6 in. flange/flange, and flange/groove end connections.

Model F-1 Dry Pipe Valves are available factory assembled in the Viking Total Pac2 enclosure, in sizes 3 through 6 in. NPS. The Total Pac2 enclosure and assembled valves comprise an integrated fire protection system which is assembled and tested at the factory, and requires only the connection to the water supply inlet, water outlet (to system), main drain, the alarm connections, and the electrical connections for the alarm devices and optional air compressor.

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Listing Country:	United States of America
Certification Type:	FM Approved