

SPRINKLER-PAC GENERATION 2 – DRY-PIPE VALVE WITH INTEGRATED NITROGEN
FEATURES

- Fully factory assembled and tested
- No field assembly required
- Just connect water supply, drain, and sprinkler piping
- Attractive and rugged metal enclosure
- Easy-to-see gauges on enclosure front

- Separate, lockable mechanical, electrical, and nitrogen enclosures
- Space for required spare sprinkler heads and wrench
- UL / FM / NYC approved major components
- 1-1/2 inch through 6 inch valve options

BENEFITS

- Saves assembly and installation time
- Quicker commissioning – just place, connect, and it's ready
- Finished appearance allows placement in or near protected space

- Reliable, dependable protection that functions as designed
- Easy inspection and maintenance
- Expert in-house and field technical support

DESCRIPTION

The **UNITED Fire Systems SPRINKLER-PAC Dry-Pipe with Integrated Nitrogen** is a fully assembled dry-pipe sprinkler valve fire suppression system, including dry-pipe valve, trim, and nitrogen generator providing one complete zone of dry-pipe water sprinkler fire protection. All components are contained in three (3) red powder-coated steel enclosures. Dry-pipe and nitrogen system indicators and controls are mounted facing forward for easy reference and use. The connections allowing monitoring of waterflow, tamper, and low / high air signaling switches are behind the electrical enclosure door. Lockable latches on enclosure doors permit restricted access to connections and components. Gasketing provides sealing of the enclosure doors. Knockouts permit easy attachment of external electrical raceways.

Dry-Pipe Valve

The dry-pipe valve assembled in the Dry-Pipe Valve **SPRINKLER-PAC** is a low-differential, latched clapper valve that uses a unique direct-acting diaphragm to separate the system water supply from the system piping. The positive latching system uses the supply water pressure to hold the clapper shut. When the water pressure in the diaphragm chamber is released, the latch retracts from the clapper and the valve actuates. The low differential and unique latch and actuator design of the valve allows the valve to be self-resetting.

Nitrogen Generator

The integral, self-contained **UNITED Fire Systems NITROGEN-PAC™** corrosion inhibiting system contains an air compressor, filters, and a membrane device to perform nitrogen separation. The system provides dry air for system initial fill and nitrogen for filling the interior of the dry-pipe sprinkler system with nitrogen at 98% or greater purity. The riser-mounted receiver provides a reservoir of nitrogen, reducing the number of compressor starts and the total compressor run time.


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Piping

Water inlet and drain connections are located on the lower right side of the mechanical enclosure. The outlet connection is on the top surface of the mechanical enclosure, behind the electrical enclosure. Grooved pipe is used for the inlet and outlet connections.

Wiring

Monitoring and supervisory circuits are connected from switches in the valve enclosure to a terminal strip in the electrical enclosure. No access to the inside of the valve enclosure is necessary to complete the wiring installation.

Options

- Choice of dry-pipe valve size (1-1/2 inch through 6 inch).

Specifications

- Maximum Service Pressure: 300 PSIG (2065 kPa gauge)
- Valve Test Pressure: Factory hydrostatically tested to 600 PSIG (4135 kPa gauge)
- Minimum Supervisory Pressure: 13 PSIG (90 kPa gauge)
- Maximum Supervisory Pressure: 18 PSIG (124 kPa gauge)
- Electrical and Nitrogen Generator Enclosures: 14 gauge steel with continuous welded seams
- Mechanical Enclosure: 12 gauge steel with continuous welded seams
- SPRINKLER-PAC™ Access Doors: Full hinge with oil-resistant gaskets.
- NITROGEN-PAC™ Access Door: Lift-off hinge pins for easy door removal
- External Power Requirement: Qty. (1) 115 VAC, 60 Hz, single-phase circuit.
- Maximum sprinkler system volume: **500 gallons** for initial-fill in 30 minutes or less with air per NFPA 13
- Maximum volume value based on sprinkler pipe leakage not exceeding 1-1/2 PSIG supervisory pressure loss in 24 hours starting at 40 PSIG per NFPA 13

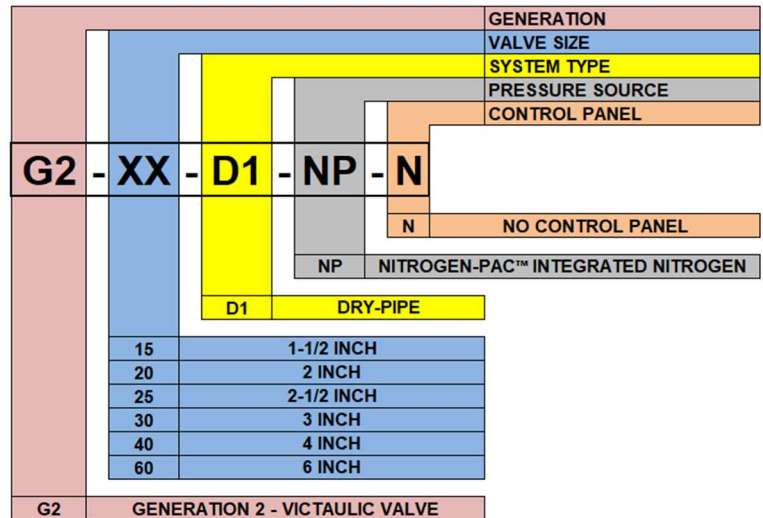
Dimension	Length
A - Depth	24
B - Valve Enclosure	50
C - Electrical Enclosure	10
D - Width	40
E - Height	70

NOTE: All dimensions are in inches

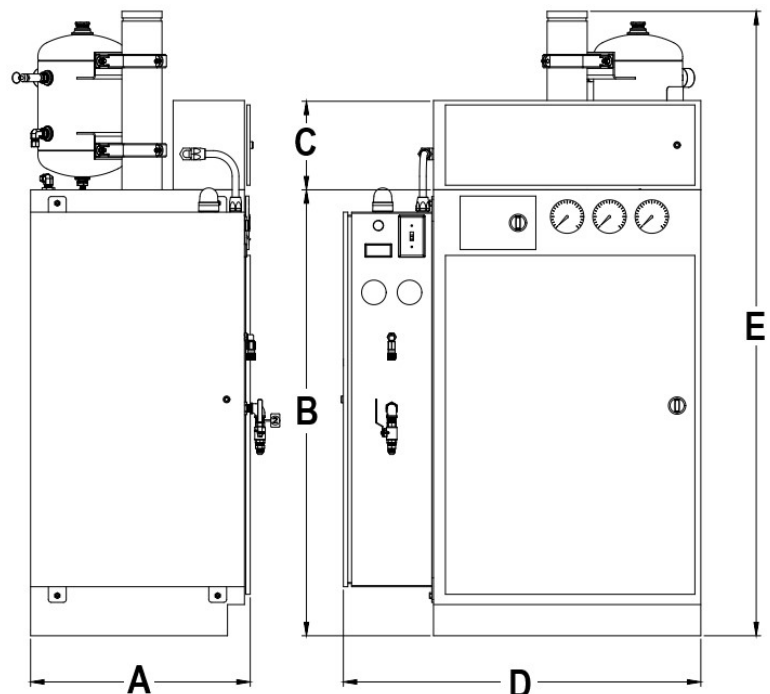
Table A - Dimensions

For additional information on the integrated nitrogen generator, refer to **UNITED Fire Systems** data sheet [UFS-600C](#) and manual [30-NPWICM-000](#).

Ordering Information



Dimensions - Refer to Table A



Left Side

Front