

V34, K8.0

Models V3417, V3418, V3419 and V3420
Intermediate Level
Standard Spray
Pendent and Upright
Standard and Quick Response

PRODUCT DESCRIPTION



These Model V34 Intermediate Level sprinklers incorporate a water shield plate to prevent water from higher level sprinklers from interfering with normal operation. These intermediate level sprinklers are designed for use in intermediate levels of rack storage or other open grate storage arrangements, where they may be exposed to upper level or ceiling level sprinklers. They are available with either standard or quick response bulbs. The design incorporates state-of-the-art, heat responsive, frangible glass bulb design (standard or quick response) for prompt, precise operation. The die cast frame is more streamlined and attractive than traditional sand cast frames. It is cast with a hex-shaped wrench boss to allow

easy tightening from many angles, reducing assembly effort. This sprinkler is available in various temperature ratings (see chart on page 2) to meet many design requirements.

Sprinkler Operation
The operating mechanism is a frangible glass bulb which contains a heat responsive liquid. During a fire, the ambient temperature rises causing the liquid in the bulb to expand. When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result, the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling the fire.

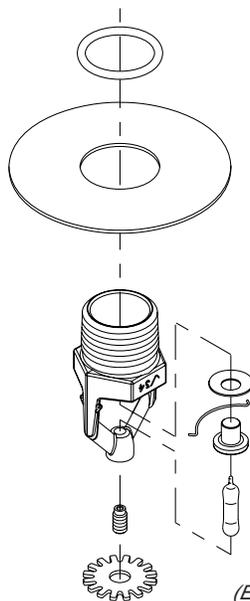
Coverage
For coverage area and sprinkler placement, refer to NFPA 13 standards.

Installation
The V3417 and V3418 intermediate level upright sprinklers are field assembled from V3401 or V3402 sprinklers respectively with the V34 intermediate upright guard sold separately (see Submittal 40.83 and I-40 instruction sheet shipped with the sprinklers). They are also available factory assembled with intermediate shield only. The V3419 and V3420 intermediate level pendent sprinklers are field assembled from V3405 or V3406 sprinklers respectively with the V34 intermediate level shield kit sold separately (see Z10SHIELD0 instruction sheet shipped with the kit).



Request Victaulic publication 40.01 for details.

TECHNICAL SPECIFICATIONS



(Exaggerated for clarity)

Models: V3417, V3418, V3419, V3420
Style: Intermediate Level Pendent or Upright
Nominal Orifice Size: 17/32" (14 mm)
K-Factor: 8.0 Imp. (11.5 S.I. ^)
Nominal Thread Size: 3/4" NPT (20 mm)
Max. Working Pressure: 175 psi (1200 kPa)
Factory Hydrostatic Test: 100% @ 500 psi (3450 kPa)
Min. Operating Pressure: 7 psi (48 kPa)
Temperature Rating: See chart on page 2.

MATERIAL SPECIFICATIONS
Upright Deflector: Bronze per UNS C22000
Pendent Deflector: Bronze per UNS C51000
Plate: Bronze per UNS C22000
O-rings: EPDM †
Bulb: Glass with glycerin solution.
Bulb Nominal Diameter:
 Standard: 5.0 mm
 Quick Response: 3.0 mm
Load Screw: Bronze per UNS C65100
Pip Cap: Bronze per UNS C65100
Spring: Beryllium nickel
Seal: Teflon* tape
Frame: Die cast brass 65-30
Lodgement Spring: Stainless steel per UNS S30200

ACCESSORIES

Installation Wrench:

- Open End: V34
- Recessed: V34

Sprinkler Finishes:

- Plain brass (only)

^ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.

*Teflon is a registered trademark of Dupont Co.

† O-rings are used to hold the shield in place and do not affect the orifice seal.

†† Cannot be installed using V34 sprinkler guard.

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APPROVALS/LISTINGS

Model	Orifice Size Inches/mm	Nominal K-Factor Imperial S.I. [^]	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡				
					UL	FM	ULC	NYC/MEA†	CSFM
V3417	17/32 14	8.0 11,5	Standard	Intermediate Upright	135 - 360 57 - 182	135 - 286 57 - 141			
V3419	17/32 14	8.0 11,5	Standard	Intermediate Pendent	135 - 360 57 - 182	135 - 286 57 - 141			
V3418	17/32 14	8.0 11,5	Quick	Intermediate Upright	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141
V3420	17/32 14	8.0 11,5	Quick	Intermediate Pendent	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141

‡ Listings and approval as of printing. Not all temperature rating combinations are Approved or Listed. Check Victaulic for specific combinations.

[^] For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.

† MEA #62-99-E.

RATINGS

All glass bulbs are rated for temperatures from -65°F (-54°C) to those shown in adjacent table.

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature – °F/°C		Glass Bulb Color
		Nominal Temperature Rating	Maximum Ambient Temp. Allowed	
Ordinary	A	135 57	100 38	Orange
Ordinary	C	155 68	100 38	Red
Intermediate	E	175 79	150 65	Yellow
Intermediate	F	200 93	150 65	Green
High	J	286 141	225 107	Blue

ORDERING INFORMATION

Please specify the following when ordering:

V34 Intermediate Upright Guard*

Sprinkler Model Number

Style

Temperature Rating

V34 Intermediate Pendent Shield Kit*

K-Factor

Thread Size

Quantity

Wrench Model Number

*Must be ordered separately to achieve a complete intermediate level sprinkler

! WARNING

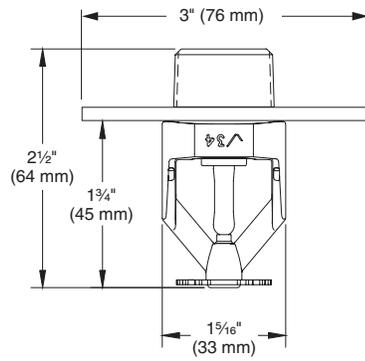


- Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation of any sprinklers.
 - Always wear safety glasses and foot protection.
 - Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.
 - Installation rules, especially those governing obstruction, must be strictly followed.
 - Painting, plating, or any re-coating of sprinklers (other than that supplied by Victaulic) is not allowed.
- Failure to follow these instructions could result in serious personal injury and/or property damage.

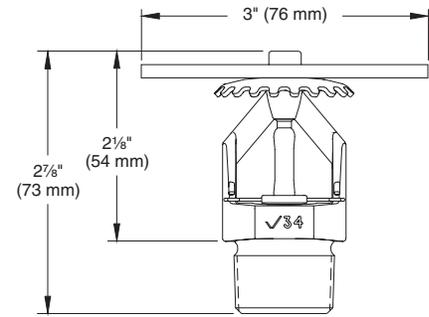
The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to the current National Fire Protection Association pamphlet that describes care and maintenance of sprinkler systems. In addition, the authority having jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters, P.O. Box 31, Easton, Pennsylvania 18044-0031, 610-559-3300.

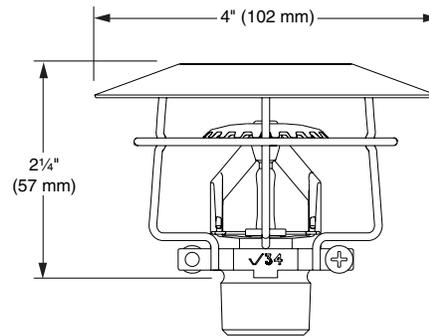
DIMENSIONS



Intermediate Pendant – V3419, V3420



Intermediate Upright – V3417, V3418

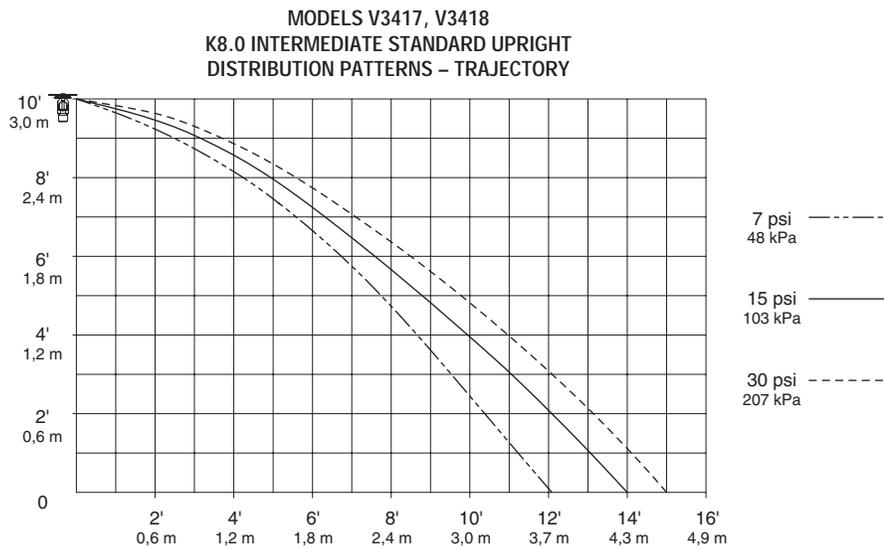
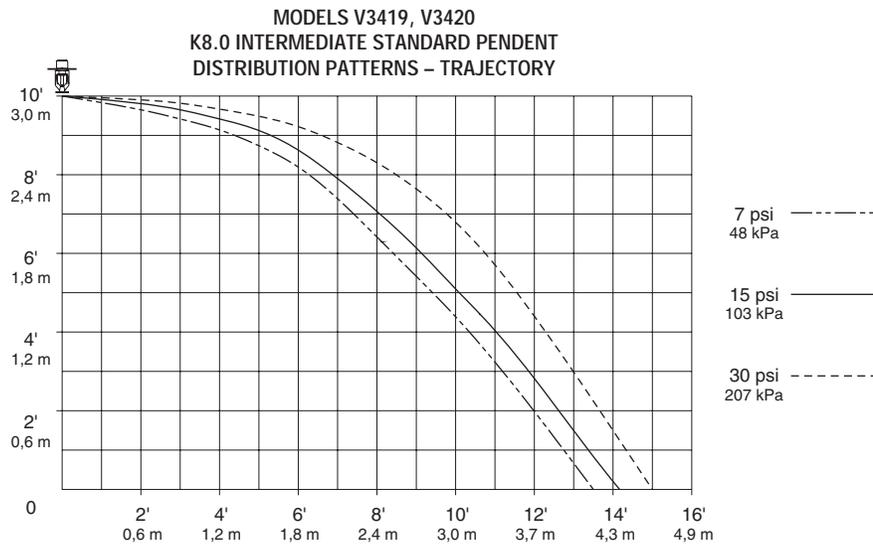


**Intermediate Upright with Guard
V3417, V3418**

AVAILABLE WRENCHES

	V34 Recessed	V34 Open End
V3417, V3418 Intermediate Upright	-	✓
V3419, V3420 Intermediate Pendant	✓	✓

DISTRIBUTION PATTERNS



NOTES:

1. Data shown is approximate and can vary due to differences in installation.
2. These graphs illustrate approximate trajectories, floor-wetting, and wall-wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance in avoiding obstructions to sprinklers and should not be used as minimum sprinkler spacing rules for installation. Refer to the appropriate NFPA National Fire Code or the Authority Having Jurisdiction for specific information regarding obstructions, spacing limitations and area of coverage requirements. Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.
3. All patterns are symmetrical to the centerline of the waterway.

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.