

AUTOMATIC SPRINKLERS 40.20

V34, K11.2

Models V3403, V3404, V3407 and V3408 Standard Spray Pendent and Upright Standard and Quick Response and Models V3403 and V3407 Storage Protection (density/area) Sprinklers Standard Response

PRODUCT DESCRIPTION



The Models V3403, V3404, V3407 and V3408 Standard Spray Sprinklers are designed to protect any hazard defined within NPFA 13 where Standard Spray Sprinklers are allowed as fire

protection. The Models V3403 and V3407 standard response sprinklers are also special sprinklers designed, tested and Listed for "Storage Protection" utilizing the density/area criteria per NFPA 13, 2002 edition (for example: Figure 12.3.3.1.5(b) Note 2, Figure 12.3.3.1.5(d) Note 5. Paragraphs 12.3.3.5.1.2, 12.3.2.5.1.2, etc.) In addition the FM Global Approval Guide and Loss Prevention Data Sheets must also be followed when installing these Model V34 sprinklers. FM Global refers to all these models as "Control Mode" sprinklers for use in storage applications utilizing the density/area design method. The discharge rates for Model V34 (ELO) sprinklers are twice that of standard ¹⁄₂" (15 mm) sprinklers and up to 60 percent higher than ¹⁄₃₂" (20 mm) orifice sprinklers. 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 hexshaped 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.

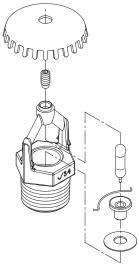
Sprinkler Operation

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, the FM Global Approval Guide and Loss Prevention Data Sheets where applicable.

TECHNICAL SPECIFICATIONS



Exaggerated for clarity

Victaulic Company of America Phone: 1-800-PICK-VIC (1-800-742-5842) Fax: 610-250-8817 e-mail:pickvic@victaulic.com 2549 Rev E 10/03 **Models:** V3403, V3404, V3407, V3408

Style: Pendent or Upright **Nominal Orifice Size:** %" (16 mm)

K-Factor: 11.2 Imp. (16,1 S.I.^) **Nominal Thread Size:** ¾" 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) UL, NFPA applications; 10 psi (69 kPa) FM Global applications.

Temperature Rating: See chart on page 2.

MATERIAL SPECIFICATIONS

Upright Deflector: Brass per UNS C22000 Pendent Deflector:

Brass per UNS C51000 **Bulb:** Glass with glycerin solution.

- Bulb Nominal Diameter:
- Standard: 5,0 mmQuick Response: 3,0 mm

Load Screw: Brass per UNS C65100

Pip Cap: Brass per UNS C65100 **Seal:** Teflon* tape

Spring: Beryllium nickel **Frame:** Die cast brass

Lodgement Spring:

Stainless steel per UNS S30200

ACCESSORIES Installation Wrench:

Open End: V34Recessed: V34

Sprinkler Finishes:

🗅 Plain brass

□ Lead**

155 and 200SR Only:

Wax**Wax over lead**

For cabinets and other accessories refer to separate sheet.

- ^ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.
- * Teflon is a registered trademark of Dupont Co.
- * UL, ULC Listed for corrosion resistance in all configurations.

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APPROVALS/LISTINGS

		Nominal			Approved Temperature Ratings °F/°C $\ddagger \Omega$				
Model	Orifice Size Inches/mm	K-Factor Imperial S.I.^	Response	Deflector Type	UL	FM	ULC	NYC/MEA†	CSFM §
V3407	5%8 16	11.2 16,1	Standard	Pendent	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141
V3403	5%8 16	11.2 16,1	Standard	Upright	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141
V3408	5%8 16	11.2 16,1	Quick	Pendent	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141
V3404	5%8 16	11.2 16,1	Quick	Upright	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. Ω All are approved open, except for areas designated "No"

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

† MEA #62-99-E. § CSFM #7690-0531:112

RATINGS

All glass bulbs are rated for temperatures from -67°F (-55°C) to those shown in adjacent table.

		Tempera		
Sprinkler Temperature Classification	Victaulic Part Identification	Nominal Temperature Rating	Maximum Ambient Temp. Allowed	Glass Bulb Color
Ordinary	А	135 57	100 38	Orange
Ordinary	С	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
- ‡	М	Open		No Bulb

‡ Standard response only.

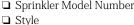
All are approved open, except for areas designated "No".

~ 150/65 if wax coated.

ORDERING INFORMATION

Please specify the following when ordering:

	Sprinkler	Model	Numbe
	oprimier	mouor	1 (unino)

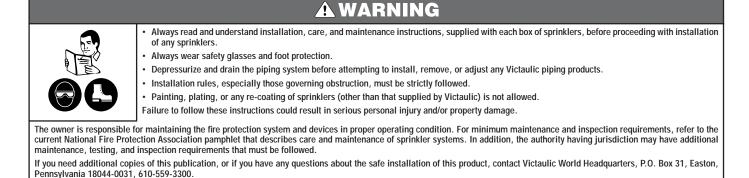


Temperature Rating

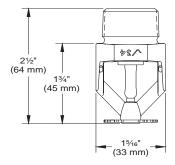
□ K-Factor

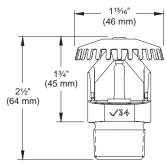
□ Thread Size

Quantity Wrench Model Number



DIMENSIONS





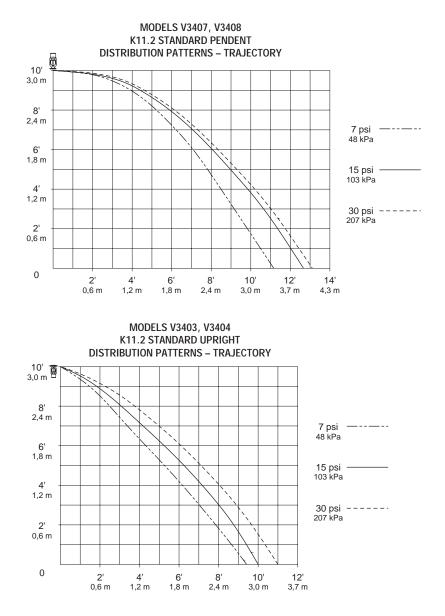
Standard Pendent - V3407, V3408

Standard Upright - V3403, V3404

AVAILABLE WRENCHES

	V34 Recessed	V34 Open End
Pendent and Upright	1	v

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, FM Global Approval Guide and Loss Prevention Data Sheets 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 Company. 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.