

V27, K5.6

# Models V2703, V2704, V2707 and V2708 **High Pressure Standard Spray Upright, Pendent and Recessed Pendent Standard and Quick Response**

## PRODUCT DESCRIPTION



Recessed Pendent



These Model V27 high pressure standard spray sprinklers are designed to produce a hemispherical spray pattern for standard commercial applications up to ordinary hazard, excluding storage applications. They have a rated working pressure of up to 250 psi (1725 kPa) and are available with either standard or quick response bulbs. The design incorporates a stateof-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) and finishes to meet many design requirements.

#### **Sprinkler Operation**

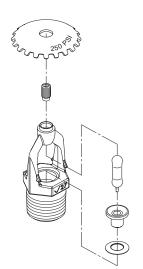
The operating mechanism is a frangible glass bulb which contains a heat responsive liquid. During a fire, the ambient temperature rises causing the liquid in the bulb to expand. When the ambient temperature reaches the rated temperature of the sprinkler, the bulb shatters. As a result, the waterway is 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.

#### TECHNICAL SPECIFICATIONS

Upright



Exaggerated for clarity

Models: V2703, V2704, V2707,

Style: Pendent, Upright or Recessed Pendent

**Nominal Orifice Size:** ½" (13 mm)

**K-Factor:** 5.6 Imp. (8,1 S.I.^)

**Nominal Thread Size:** 1/2" NPT (15 mm)

Max. Working Pressure: 250 psi (1725 kPa)

**Factory Hydrostatic Test:** 100% @ 600 psi (4140 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

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

Spring: Beryllium nickel **Seal:** Teflon\* tape

Frame: Die cast brass 65-30

**Lodgement Spring:** Stainless steel per UNS S30200

#### **ACCESSORIES Installation Wrench:**

- Open End: V27
- ☐ Recessed: V38, V38-3
- ☐ Socket: V27

#### Finishes:

- ☐ Plain brass
- ☐ Chrome plated
- White painted\*\*
- ☐ Flat black painted\*\*
- ☐ Custom painted\*\* ☐ Lead\*\*

## 155, 200, 286SR Only:

- Wax\*\*
- Wax over lead\*\*

For cabinets and other accessories refer to separate sheet

NOTE: Weather resistant escutcheons available upon request.

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

#### **VICTAULIC® IS AN ISO 9001 CERTIFIED COMPANY**

#### Victaulic Company of America Phone: 1-800-PICK-VIC (1-800-742-5842) Fax: 610-250-8817 e-mail:pickvic@victaulic.com

e-mail: vical@victaulic.com

## APPROVALS/LISTINGS

		Nominal			Appro	Approved Temperature Ratings °F/°C ‡ Ω			
Model	Orifice Size Inches/mm	K-Factor Imperial S.I.^	Response	Deflector Type	UL	ULC	NYC/MEA†	CSFM §	
V2703	½ 13	5.6 8,1	Standard	Upright	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	
V2707	½ 13	5.6 8,1	Standard	Pendent	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	
V2707	½ 13	5.6 8,1	Standard	Recessed Pendent Up to ¾" Adjustment	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	135 - 360 57 - 182	
V2704	½ 13	5.6 8,1	Quick	Upright	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	
V2708	½ 13	5.6 8,1	Quick	Pendent	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	135 - 286 57 - 141	
V2708	½ 13	5.6 8,1	Quick	Recessed Pendent Up to ¾" Adjustment	135 - 200 57 - 93	135 - 200 57 - 93	135 - 200 57 - 93	135 - 200 57 - 93	

## **RATINGS**

All glass bulbs are rated for temperatures from -67°F (-55°C) up 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
Extra High ‡	К	360 182	300 149	Violet
- ‡	М	Open	_ _	No Bulb

<sup>‡</sup> Standard response only.

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

## ORDERING INFORMATION

Please specify the following when ordering:

■ Sprinkler Model Number	☐ K-Factor	Sprinkler Finish
<b>⊃</b> Style	☐ Thread Size	Escutcheon Finish
☐ Temperature Rating	Quantity	☐ Wrench Model Number

## **A WARNING**



- Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation
- · 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.

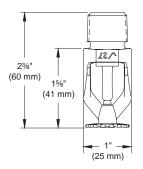
<sup>‡</sup> Listings and approval as of printing. Ω All are approved open, except for areas designated "No" ^ For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.

<sup>†</sup> MEA #62-99-E.

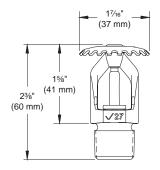
<sup>§</sup> CSFM #7690-0531:112

<sup>~ 150/65</sup> if wax coated.

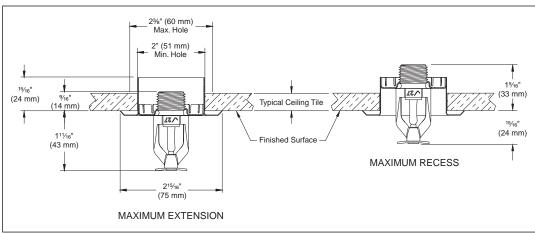
# **DIMENSIONS**







Standard Upright - V2703, V2704

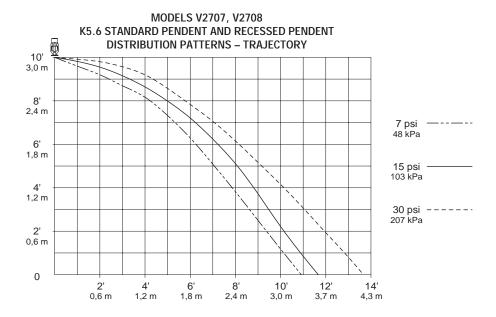


3/4" Adjustment Recessed - V2707, V2708 (Drawing not to scale)

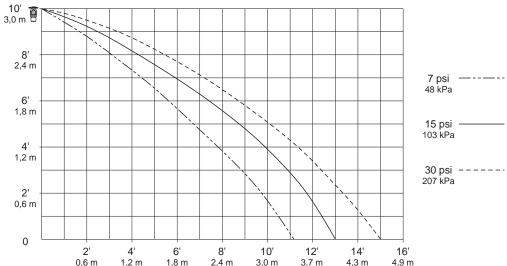
# **AVAILABLE WRENCHES**

	V27 Socket	V38 or V38-3 Recessed	V27 Open End
V2707, V2708 Pendent	✓	1	1
V2707, V2708 Recessed Pendent	✓	1	-
V2703, V2704 Upright	-	1	/

# **DISTRIBUTION PATTERNS**



#### MODELS V2703, V2704 K5.6 STANDARD UPRIGHT DISTRIBUTION PATTERNS – TRAJECTORY



#### 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
- ${f 3.}$  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.