

# V27, K5.6



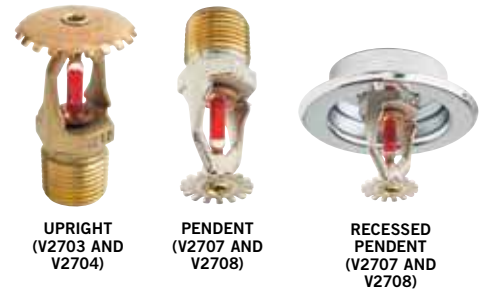
Standard Spray; Upright, Pendent and Recessed Pendent

**MODELS/S.I.N. V2703 AND V2707 STANDARD RESPONSE**  
**MODELS/S.I.N. V2704 AND V2708 QUICK RESPONSE**

These Model V27 standard spray sprinklers are designed to produce a hemispherical spray pattern for standard commercial applications. 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) and finishes to meet many design requirements.

The recessed pendent should be utilized with a Model V27 recessed escutcheon which provides up to 3/4" / 19mm of adjustments.



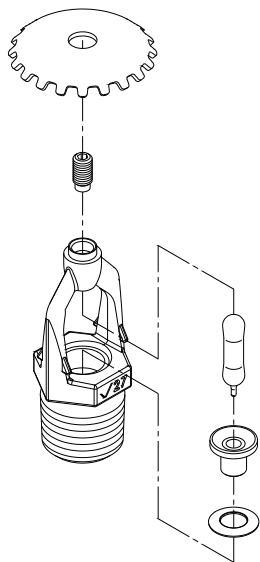
## SPRINKLER OPERATION

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



Exaggerated for clarity

Models/S.I.N.: V2703, V2704, V2707, V2708

**Style:** Pendent, Upright or Recessed Pendent

**Nominal Orifice Size:** 1/2" / 13mm

**K-Factor:** 5.6 Imp./8.1 S.I. ^

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

**Max. Working Pressure:**  
 175 psi / 1200 kPa FM Global  
 250 psi / 1725 kPa UL

**Factory Hydrostatic Test:**  
 100% @ 500psi / 3450 kPa

**Min. Operating Pressure:** 7 psi / 48 kPa

**Temperature Rating:** See charts on page 2 & 3.

### MATERIAL SPECIFICATIONS

**Upright Deflector:** Bronze per UNS C22000

**Pendent Deflector:** Bronze per UNS C51000

**Bulb:** Glass with glycerin solution.

- Bulb Nominal Diameter:**
- Standard: 5.0mm
  - Quick Response: 3.0mm

**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: V27
- Recessed: V27-2

### Finishes:

- Plain brass
- Chrome plated
- White painted\*\*
- Black painted\*\*
- Custom painted\*\*
- Proprietary nickel Teflon\* coating\*\*
- For 155, 200, and 286°F Standard Response Only, wax coated\*\*

For cabinets and other accessories refer to separate sheet.

**NOTE:** Weather resistant recessed escutcheons available upon request.

^ 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 Listed for corrosion resistance in all configurations.

|                  |                    |                            |
|------------------|--------------------|----------------------------|
| <b>JOB/OWNER</b> | <b>CONTRACTOR</b>  | <b>ENGINEER</b>            |
| System No. _____ | Submitted By _____ | Spec Sect _____ Para _____ |
| Location _____   | Date _____         | Approved _____             |
|                  |                    | Date _____                 |

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| APPROVALS/LISTINGS                            | Model  |  |   |   |   |  |
|---|--|--|---|---|---|--|
|   | V2703  | V2707  | V2707   | V2704   | V2708   | V2708  |
| Orifice Size (inches)                         | ½"   | ½"   | ½"  | ½"  | ½"  | ½"   |
| Orifice Size (mm)                             | 13   | 13   | 13  | 13  | 13  | 13   |
| Nominal K Factor Imperial                     | 5.6  | 5.6  | 5.6   | 5.6   | 5.6   | 5.6  |
| Nominal K Factor S.I. <sup>^</sup>            | 8.1  | 8.1  | 8.1   | 8.1   | 8.1   | 8.1  |
| Response                                      | Standard   | Standard   | Standard  | Quick   | Quick   | Quick  |
| Deflector Type                                | Upright  | Pendent  | Recessed Pendent  | Upright   | Pendent   | Recessed Pendent                                     |
| Adjustment                                    |  |  | up to ¾"  |   |   | up to ¾"   |
| Approved Temperature Ratings F°/C° by Agency‡ | Model  |  |   |   |   |  |
| <b>UL</b>                                     | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>ULC</b>                                    | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>FM #</b>                                   | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C                | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>NYC/MEA # 62-99-E</b>                      | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>CSFM # 7690-0531:112</b>                   | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>LPCB</b>                                   | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>175°F/79°C<br>200°F/93°C   | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>175°F/79°C<br>200°F/93°C                              | None  | None   |
| <b>VNIPO</b>                                  | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C<br>360°F/182°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C                | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C<br>286°F/141°C | 135°F/57°C<br>155°F/68°C<br>175°F/79°C<br>200°F/93°C |
| <b>CCC</b>                                    | <b>ZSTZ</b><br>155°F/68°C<br>200°F/93°C  | <b>ZSTX</b><br>155°F/68°C<br>200°F/93°C  | None  | <b>K-ZSTZ</b><br>155°F/68°C<br>200°F/93°C                           | <b>K-ZSTX</b><br>155°F/68°C<br>200°F/93°C                           | None   |

‡ Listings and Approvals as of printing. All are approved open, except for areas designated "No".

<sup>^</sup> For K Factor when pressure is measured in Bar, multiply S.I. units by 10.0

# FM Approved with 1/2" adjustment escutcheon only - quick response

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### RATINGS

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

| Sprinkler Temperature Classification | Victaulic Part Identification | Temperature – °F/°C        |                                     | Glass Bulb Color |
|--------------------------------------|-------------------------------|----------------------------|-------------------------------------|------------------|
|                                      |                               | Nominal Temperature Rating | Maximum Ambient Temperature Allowed |                  |
| Ordinary                             | A                             | 135<br>57                  | 100<br>38                           | Orange           |
| Ordinary                             | C                             | 155<br>68                  | 100<br>38                           | Red              |
| Intermediate                         | E                             | 175<br>79                  | 150<br>65                           | Yellow           |
| Intermediate                         | F                             | 200<br>93                  | 150<br>65                           | Green            |
| High                                 | J                             | 286<br>141                 | 225 ~<br>107                        | Blue             |
| Extra High ‡                         | K                             | 360<br>182                 | 300<br>149                          | Purple           |
| – ‡                                  | M                             | 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 Number |  |
| Style                  |  |
| Temperature Rating     |  |
| K-Factor               |  |
| Thread Size            |  |
| Quantity               |  |
| Sprinkler Finish       |  |
| Escutcheon Finish      |  |
| Wrench Model Number    |  |




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⚠ 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.

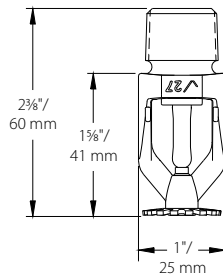
Failure to follow these instructions could result in serious personal injury and/or property damage.

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 document NFPA 25 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.

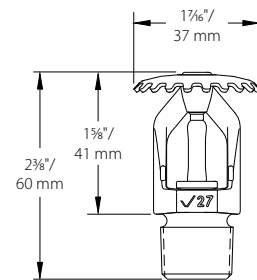
If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters: P.O. Box 31, Easton, Pennsylvania 18044-0031 USA, Telephone: 001-610-559-3300.

## DIMENSIONS

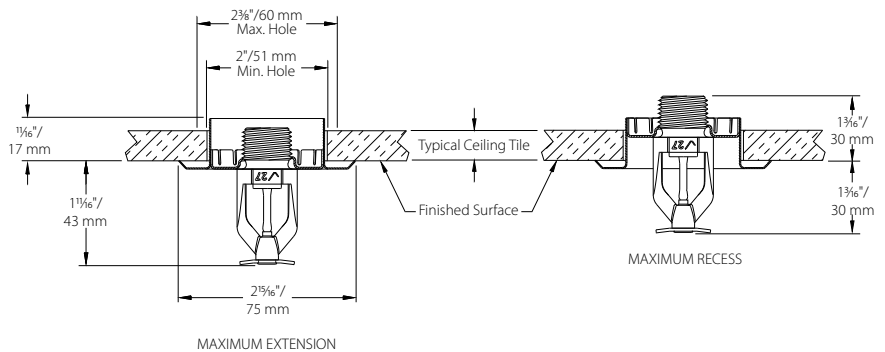
Standard Pendent – V2707, V2708



Standard Upright – V2703, V2704



1/2" Adjustment Recessed – V2707, V2708 (drawing not to scale)



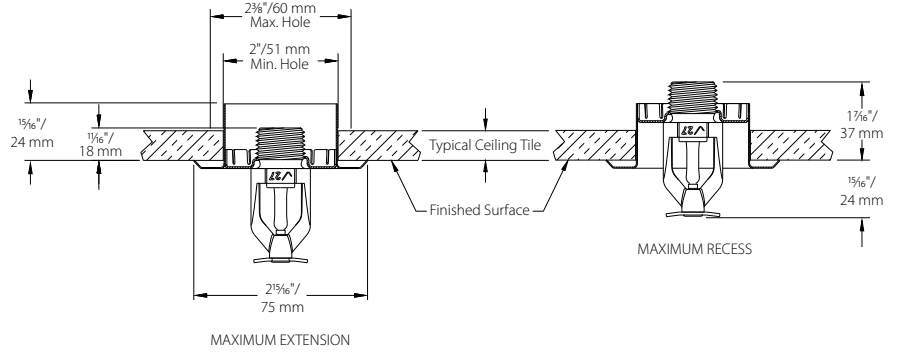
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## DIMENSIONS

¾" Adjustment Recessed – V2707, V2708 (drawing not to scale)



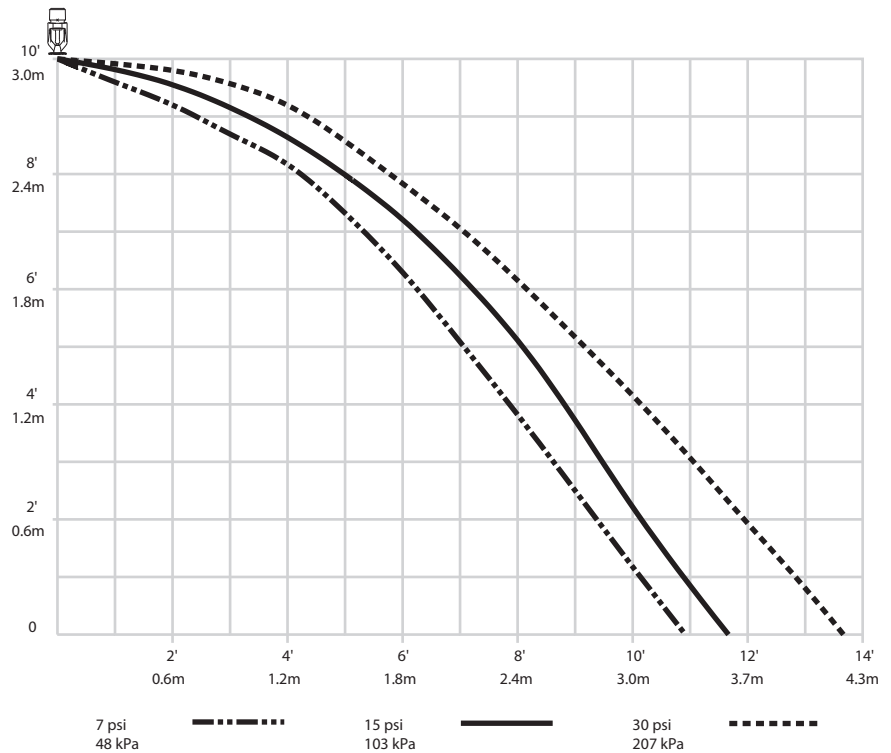
## AVAILABLE WRENCHES

| Sprinkler Type                | V27-2 Recessed | V27 Open End |
|-------------------------------|----------------|--------------|
| V2707, V2708 Pendent          | yes            | yes          |
| V2707, V2708 Recessed Pendent | yes            | —            |
| V2703, V2704 Upright          | yes            | yes          |

## DISTRIBUTION PATTERNS

Models/S.I.N. V2707, V2708

K5.6 standard pendent and recessed pendent distribution patterns – trajectory



See notes on next page.

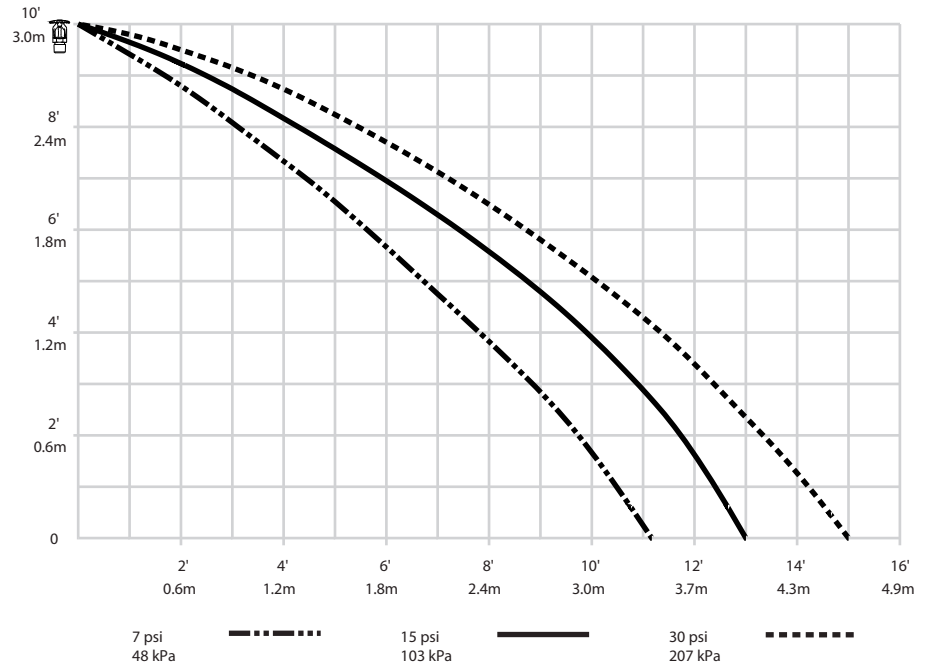
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**MODELS/S.I.N. V2704 AND V2708 QUICK RESPONSE**

**DISTRIBUTION PATTERNS**

**Models/S.I.N. 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.
- 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.

**NOTE**

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.

For complete contact information, visit [www.victaulic.com](http://www.victaulic.com)

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