

# V36, K5.6

Dry Type Standard Spray, Light Hazard  
Horizontal Sidewall and  
Recessed Horizontal Sidewall

**V3609 STANDARD RESPONSE**  
**V3610 QUICK RESPONSE**



**FLUSH  
HORIZONTAL SIDEWALL**



**DRY RECESSED  
HORIZONTAL SIDEWALL**



**DRY SLEEVE & SKIRT  
HORIZONTAL SIDEWALL**



**EXTENDED  
HORIZONTAL SIDEWALL**



**PLAIN  
HORIZONTAL SIDEWALL**

The V36 dry Sprinkler is used in special applications such as freezing environments and conditions where sediment or foreign materials might accumulate in ordinary horizontal pipe nipples.

The Model V36 Dry Type Horizontal Sidewall Sprinkler utilizes a frangible glass bulb. At the bulb's rated temperature, the sprinkler opens releasing the bulb seat assembly, causing the inner tube assembly to move, allowing the spring assembly to pivot alongside the inner tube. At this time, water flows through the sprinkler and is distributed by the deflector, in an approved discharge pattern.

The heart of the Model V36 sprinkler's proven actuating assembly is a hermetically sealed frangible glass bulb that contains a precisely measured amount of fluid. When heat is absorbed, the liquid within the bulb expands increasing the internal pressure. At the prescribed temperature the internal pressure within the bulb exceeds the strength of the glass causing the glass to shatter. This results in water discharge which is distributed in an approved pattern.

**COVERAGE:**

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

**JOB OWNER**

System No. \_\_\_\_\_  
Location \_\_\_\_\_

**CONTRACTOR**

Submitted By \_\_\_\_\_  
Date \_\_\_\_\_

**ENGINEER**

Spec Sect \_\_\_\_\_ Para \_\_\_\_\_  
Approved \_\_\_\_\_  
Date \_\_\_\_\_

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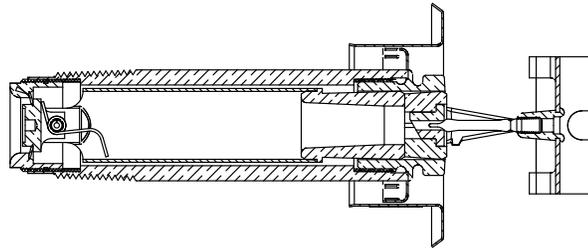


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TECHNICAL SPECIFICATIONS:



Exaggerated for clarity

- Models:** V3610 and V3609
- Style:** Horizontal Sidewall and Recessed Horizontal Sidewall
- Nominal Orifice Size:** 1/2"/13mm
- Orifice Insert:** Stainless steel per UNS S30300
- K-Factor:** 5.6 Imp./8,1 S.I.^
- Nominal Thread Size:** 1" NPT/33.7 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 3.

**MATERIAL SPECIFICATIONS**

- Deflector:** Brass per UNS C22000 or Stainless Steel per UNS S30400
- Bulb:** Glass with glycerin solution
  - Standard: 5.0mm
  - Quick Response: 3.0mm
- Split Spacer:** Stainless steel per UNS S30300
- Load Screw:** Brass per UNS C36000
- Pip Cap:** Stainless steel per UNS S30300
- Spring Seal Assembly:** Teflon\* coated Beryllium nickel alloy and Stainless steel per UNS S30300
- Frame:** Die cast brass
- Outer Tube:** Galvanized steel pipe
- Inner Tube:** Stainless steel per UNS S30400
- Escutcheon:** 1010 - 1018 mild steel and Stainless Steel
- Torsion Spring:** Stainless Steel Wire

**ACCESSORIES**

**Installation Wrench:** Model V36 Open End and Recessed Wrenches fit all V36 Series frames.

**Finishes:**

- Plain brass
- Chrome plated <sup>Δ</sup>
- White Painted <sup>Δ</sup>
- Flat black painted <sup>Δ</sup>
- Custom painted <sup>Δ</sup>
- Wax <sup>Δ</sup>
- Proprietary Nickel Teflon\* Coated <sup>Δ</sup>

For cabinets and other accessories refer to separate sheet.

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

\* Teflon is a registered trademark of Dupont Co.

<sup>Δ</sup> UL Listed for corrosion resistance in all configurations.

**NOTES:**

1. Weather resistant escutcheon available upon request.
2. Only the Plain Brass and Nickel Teflon finishes are FM approved.

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## APPROVALS/LISTINGS

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡ **		
					UL *	C-UL *	FM
V3610	½ 13	5.6 8.1	Quick	Horizontal Sidewall	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141
V3610	½ 13	5.6 8.1	Quick	Recessed Horizontal Sidewall	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200 57, 68, 93
V3609	½ 13	5.6 8.1	Standard	Horizontal Sidewall	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141
V3609	½ 13	5.6 8.1	Standard	Recessed Horizontal Sidewall	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200 57, 68, 93

‡ Listings and approval as of printing.

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

\*Light Hazard Only - Listed for light hazard only with deflector from 4" – 12" below the ceiling.

\*\* Approved for V3609 and V3610 up to 48" length.

## RATINGS

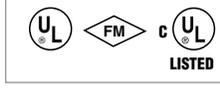
All glass bulbs are rated for temperatures from -67°F/-55°C to those shown in table below.

Sprinkler Temperature Classification	Temperature – °F/°C		Glass Bulb Color
	Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	135/155 57/68	100 38	Orange/Red
Intermediate	200 93	150 65	Green
High	286 141	225 107	Blue

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## ORDERING INFORMATION

Please specify the following when ordering:

Sprinkler Model Number	
Style	
Temperature Rating	
K-Factor	
Quantity	
Sprinkler Finish	
Escutcheon Style	
"A" Dimension – Distance from face of fitting to the finished ceiling line regardless of escutcheon used.	

## AVAILABLE WRENCHES

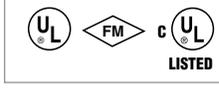
Model V36 Open End and Recessed Wrenches fit all V36 Series frames.



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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.

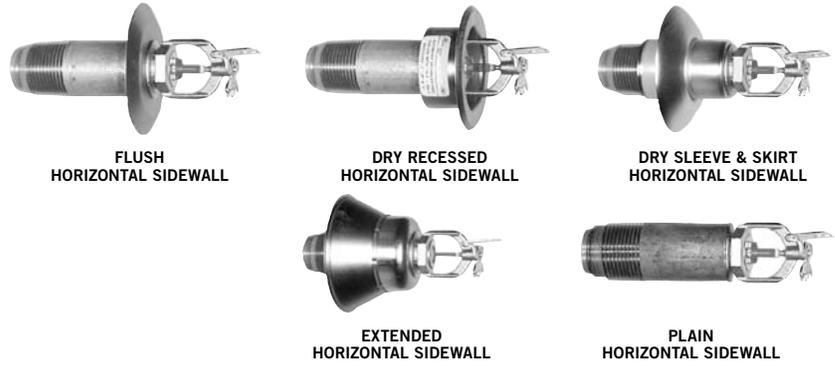
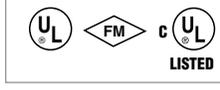
The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to the current National Fire Protection Association pamphlet that describes care and maintenance of sprinkler systems. In addition, 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 USA, Telephone: 001-610-559-3300.

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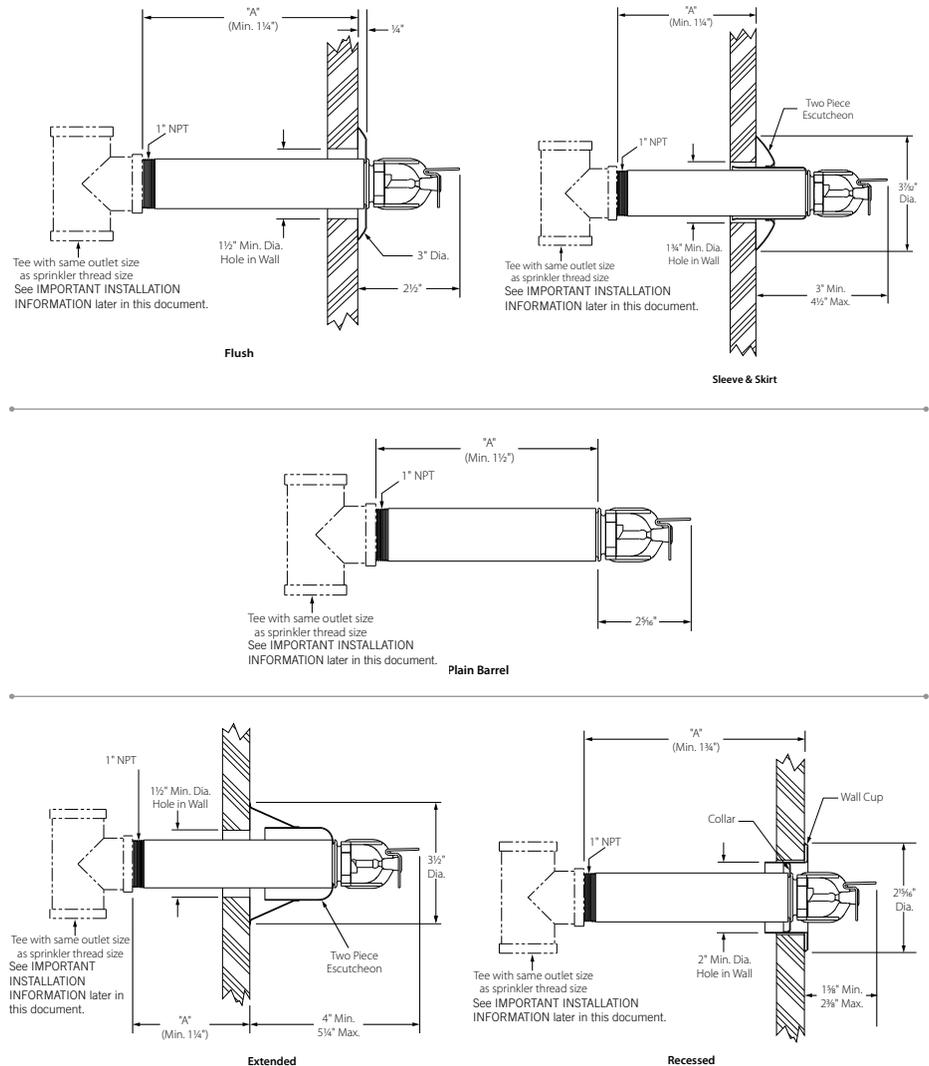
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DIMENSIONS

**NOTE:** The “A” dimension of a dry sprinkler, which extends into a freezer from a wet piping system, must take into account the wall or ceiling thickness of the freezer. See IMPORTANT INSTALLATION INFORMATION later in this document.

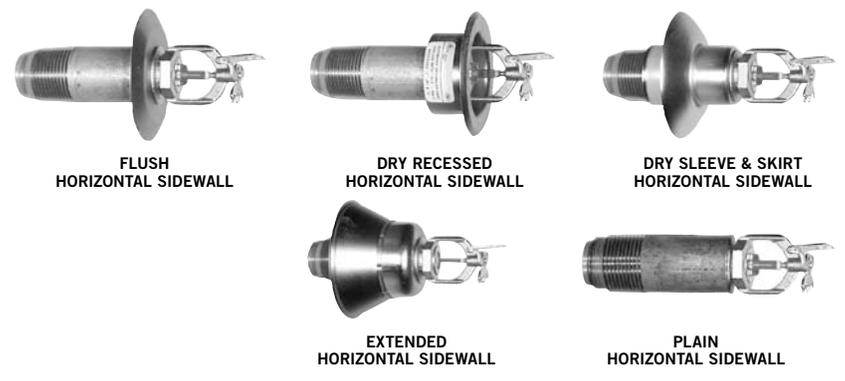
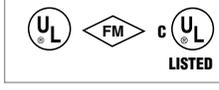


**DEFLECTOR TO CEILING DISTANCE 4 – 12”/102 – 305 MM  
FOR ALL CONFIGURATIONS SHOWN ABOVE.**

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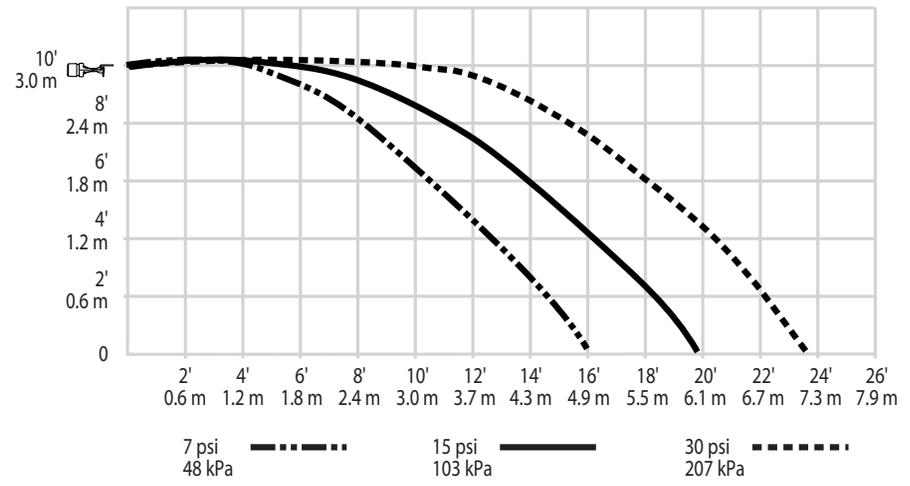
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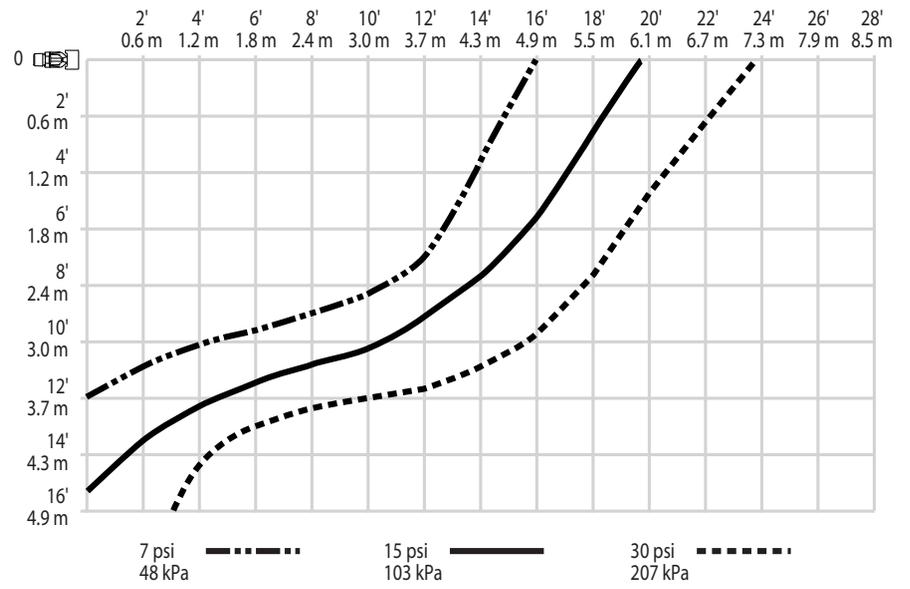


**DISTRIBUTION PATTERNS**

**MODELS V3610, V3609**  
**HORIZONTAL SIDEWALL AND RECESSED HORIZONTAL SIDEWALL**  
**DISTRIBUTION PATTERNS – TRAJECTORY**



**MODELS V3610, V3609**  
**HORIZONTAL SIDEWALL AND RECESSED HORIZONTAL SIDEWALL**  
**DISTRIBUTION PATTERNS – PLAN VIEW**

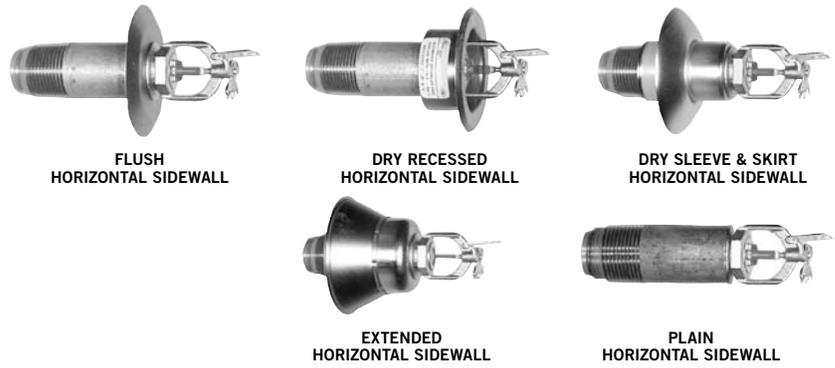
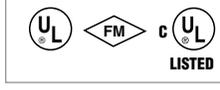


See notes on last page.

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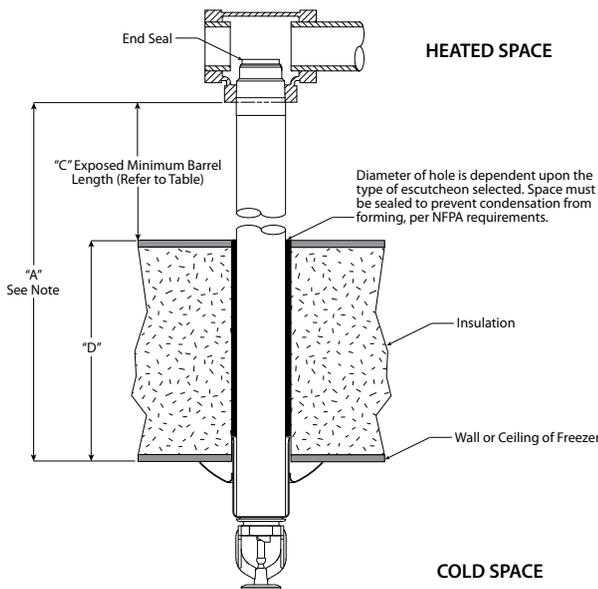
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**IMPORTANT INSTALLATION INFORMATION**

For detailed installation instructions, see publication I-40.

- No. 1** Victaulic Model V36 Series Dry sprinklers should be installed in accordance with NFPA 13. These sprinklers are to be installed using a pipe wrench applied to the outer tube. When this is not possible, the proper sprinkler wrench may be used with extreme care for lengths up to approximately 18". Excessive force may distort the frame thus destroying the unit.
- No. 2** Dry sprinklers **MUST** be installed only into the outlet of a cast or malleable iron tee.
- No. 3** **DO NOT** install dry sprinklers into any couplings or threaded elbows. In addition, **DO NOT** install dry sprinklers into any fitting that interferes with thread penetration. **NOTE:** The end seal of the dry sprinkler **MUST NOT** bottom out in the fitting.



Exaggerated for Clarity

TYPICAL SLEEVE AND SKIRT CONFIGURATION FOR EXAMPLE ONLY

**NOTE:** The "A" dimension of a dry sprinkler, which extends into a freezer from a wet piping system, must take into account the wall or ceiling thickness of the freezer. The minimum length of the dry sprinkler should not be less than the lengths specified in the following table, plus the thickness of the freezer's wall or ceiling ("A" = "C" + "D").

Refer to the drawing for a representation of the "A" dimension. **DO NOT** attempt to modify dry sprinklers, since they are manufactured to this specific "A" dimension.

The following table is used when the ambient temperature is maintained between 40°F/4°C and 60°F/16°C around the wet piping system.

**EXPOSED BARREL AMBIENT TEMPERATURE (°F/°C)**

Ambient Temperature Exposed to Discharge End of Sprinkler °F/°C	Exposed Minimum Barrel Length inches/mm		
	40°F/4°C	50°F/10°C	60°F/16°C
40	0	0	0
4	0	0	0
30	0	0	0
-1	0	0	0
20	4	0	0
-7	102	0	0
10	8	1	0
-12	203	25	0
0	12	3	0
-18	305	76	0
-10	14	4	1
-23	356	102	25
-20	14	6	3
-29	356	152	76
-30	16	8	4
-34	406	203	102
-40	18	8	4
-40	457	203	102
-50	20	10	6
-46	508	254	152
-60	20	10	6
-51	508	254	152

**NOTE:** Exposed minimum barrel lengths are inclusive up to 30-mph/48-kph wind velocities

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**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 and 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.

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