

V36, K8.0

Dry Type Standard Spray
Upright

V3603 STANDARD RESPONSE
V3604 QUICK RESPONSE



DRY UPRIGHT

The Model V36 Series Dry Type Standard Spray Upright Sprinkler has been redesigned utilizing stainless steel internal components. The V36 Dry Sprinkler is used in special applications such as freezing environments. As an example, they may be efficiently used when connected to a wet type sprinkler system and extended into an unheated attic space.

The Model V36 Dry Type Standard Spray Upright 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 the 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.

NOTE:

These sprinklers meet the new test requirements in UL 199, effective March 26, 2004

JOB OWNER

System No. _____
Location _____

CONTRACTOR

Submitted By _____
Date _____

ENGINEER

Spec Sect _____ Para _____
Approved _____
Date _____

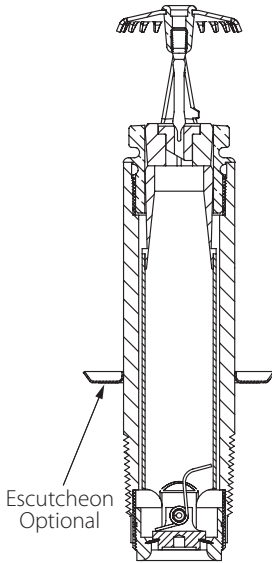
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TECHNICAL SPECIFICATIONS:

Exaggerated for Clarity

Models: V3604 and V3603

Style: Upright

Nominal Orifice Size: 17/32"/14 mm

Orifice Insert: UNS S30300

K-Factor: 8.0 Imp./11.5 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: 12 psi/83 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: 5.0 mm
- Quick Response: 3.0 mm

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

Torsion Spring: SST Wire

ACCESSORIES

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

Finishes:

- Plain brass
- Chrome plated
- White Painted ^Δ
- Flat black painted ^Δ
- Custom painted ^Δ
- Wax ^Δ (SR 155°, 200°, 286° only)
- Wax/Lead ^Δ (SR 155°, 200°, 286°
only)
- Lead ^Δ
- Proprietary Nickel Teflon* Coated ^Δ

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.

^Δ UL Listed for corrosion resistance in all
configurations

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APPROVALS/LISTINGS

Model	Orifice Size	Nominal K-Factor	Response	Deflector Type	Approved Temperature Ratings °F/°C ‡ * †		
					Inches mm	Imperial S.I. ^	Standard or Quick
V3604	17/32 14	8.1 11.5	Quick	Upright	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141
V3603	17/32 14	8.1 11.5	Standard	Upright	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141	135, 155, 200, 286 57, 68, 93, 141

‡ Listings and approval as of printing.

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

*Listed for all hazards. Minimum operating pressure of 12 psi.

Δ FM Approved for V3603 and V3604 Dry Sprinklers up to 30" length.

** Listed for V3603 and V3604 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	
"A" Dimension – Dimension from face of fitting to the top of the deflector.	

AVAILABLE WRENCHES

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



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WARNING

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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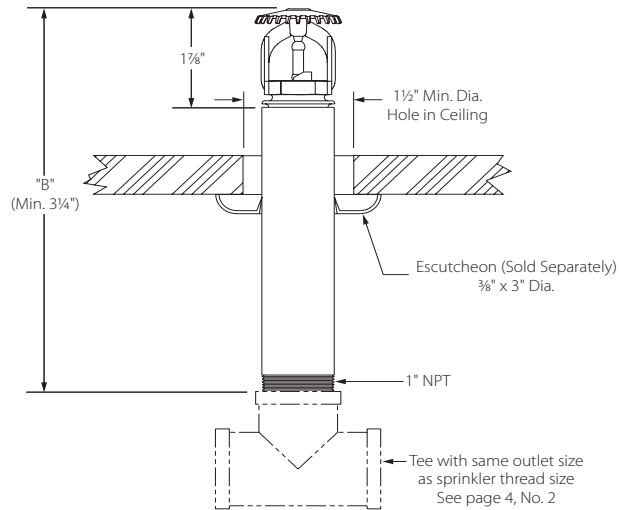
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DIMENSIONS

NOTE: The "A" dimension of a dry sprinkler which extends into freezers from wet pipe systems should be sized to provide at least 14" between the freezer's outside wall or ceiling and the wet pipe.



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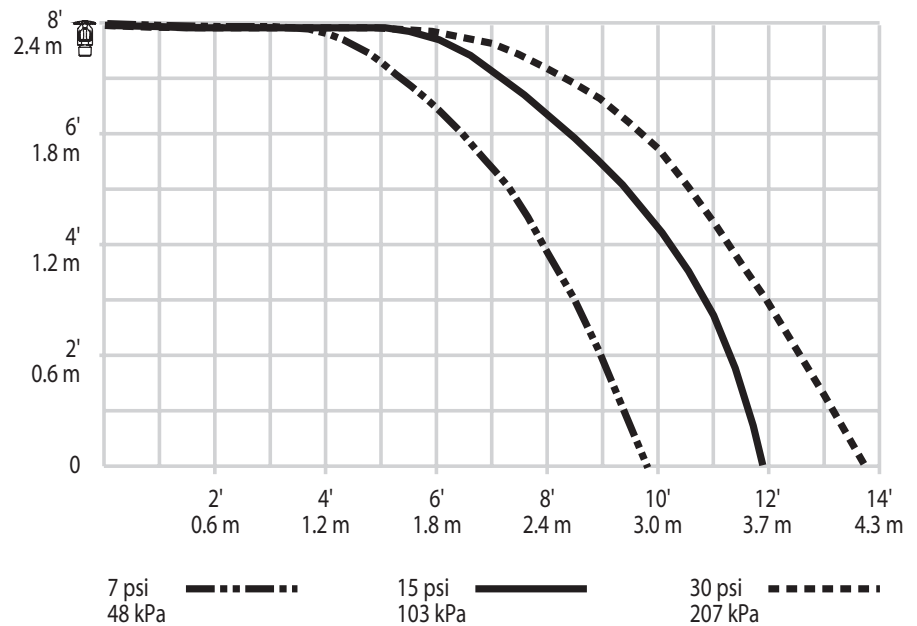
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DISTRIBUTION PATTERNS

MODELS V3604, V3603 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 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.

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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.

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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