



TECHNICAL DATA

STAINLESS STEEL DRY PENDENT SPRINKLERS

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services: 877-384-5464 Fax: 269-818-1680 Email: techsvcs@vikingcorp.com

1. DESCRIPTION

Viking Stainless Steel Dry Pendent Sprinklers are thermosensitive spray sprinklers suitable for use in areas subject to freezing. The sprinklers are designed for dry systems and preaction systems where it is necessary to prevent water or condensation from entering the drop nipple before sprinkler operation. They may also be installed in spaces subject to freezing and supplied from a wet system in an adjacent heated area.

Viking Standard Response Dry Pendent Sprinklers are available in various finishes and temperature ratings, to meet design requirements. **These sprinklers are not listed as corrosion-resistant sprinklers, and are not intended for use in corrosive environments.**

2. LISTINGS AND APPROVALS

NOTE: Viking Stainless Steel Dry Pendent Sprinklers carry no listings or approvals.

Viking Stainless Steel Dry Pendent Sprinklers are not intended for use in corrosive environments. Use only sprinklers listed for corrosive environments when subject to corrosive atmospheres.



Adjustable Recessed Plain Barrel
(Not Listed or Approved)

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: 175 psi (12 bar). Factory tested pneumatically to 100 psi (6.89 bar)

Thread size: 1" NPT or 25 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric*) for all lengths.

*Metric K-factor measurement shown is when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.

Glass-bulb fluid temperature rated to -65 °F (-55 °C)

Material Standards:

Frame Casting: Stainless Steel UNS-S30300

Deflector: Stainless Steel UNS-N08367

Bulb: Glass, nominal 5 mm diameter

Belleville Spring Sealing Assembly: Nickel Alloy, coated on both sides with Teflon Tape

Spring Base: Brass UNS-C31400 or UNS-C31600

Compression Screw: Stainless Steel UNS-S31603

Pip Cap: Brass UNS-C31400 or UNS-C31600, Nickel Plated

Pip Cap Adapter: Brass UNS-C36000, Nickel Plated

Orifice: Copper UNS-C22000 or UNS-C11000, Nickel Plated

Tube: ERW Hydraulic Steel Tube

Support (Internal): Stainless Steel UNS-S30400

Barrel: Steel Pipe UNS-G10260, Electrodeposited Epoxy Base finish

Barrel End and Threads: QM Brass, Epoxy Coated

Escutcheon: Stainless Steel UNS-S30400

Ordering Information: (Also refer to the current Viking price list.)

Order Stainless Steel Dry Pendent Sprinklers by first adding the appropriate suffix for the temperature rating, and then the suffix for the length ("A" dimension) to sprinkler base part number. Order in a specific length noted as the "A" dimension (see Figures 3 through 5). The "A" dimension is the distance from the face of the fitting (tee) to the desired finished surface of the ceiling.

These sprinklers may be ordered in standard lengths from 3" to 47" (76.2 mm to 1,194 mm) for the plain barrel style, and 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm) for the adjustable recessed style.

Lengths exceeding the standard lengths are available on a "made-to-order" basis: Recessed Dry Pendent up to 65-1/2" (1,664 mm).

Plain Barrel Dry Pendent up to 65" (1,651 mm). Contact the manufacturer for more information.

Temperature Suffix: 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

For example, sprinkler VK169 with 1" NPT Threads, a 155 °F (68 °C) temperature rating, and "A" length of 10" = Part No. 10360UB10.

Viking Technical Data may be found on
The Viking Corporation's Web site at
<http://www.vikinggroupinc.com>.
The Web site may include a more recent
edition of this Technical Data Page.



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Available Finishes And Temperature Ratings:

Refer to Table 1.

Accessories: (Also refer to the "Sprinkler Accessories" section of the Viking data book.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 07297W/B (available since 1991)

B. Wrench for recessed sprinklers: Part No. 07565W/B** (available since 1991)

**A ½" ratchet is required (not available from Viking).

Sprinkler Guard: Chrome, with no listings or approvals, for installation on dry pendent sprinklers manufactured after May 1994 only (Part No. 08954).

Replacement Recessed Escutcheons: Base Part No. 07529

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the internal parts to open the waterway. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

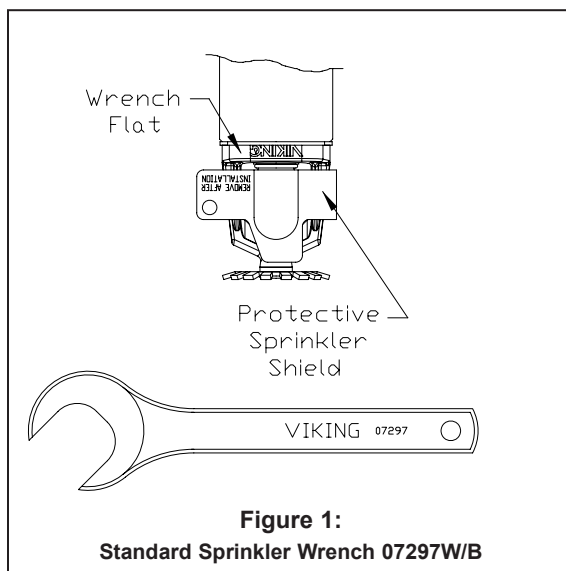
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Stainless Steel Dry Pendent Sprinklers are available through a network of domestic and international distributors. See The Viking Corporation web site for the closest distributor or contact The Viking Corporation.

8. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.





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TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	155 °F (68 °C)	100 °F (38 °C)	Red
Intermediate	175 °F (79 °C)	150 °F (65 °C)	Yellow
Intermediate	200 °F (93 °C)	150 °F (65 °C)	Green
High	286 °F (141 °C)	225 °F (107 °C)	Blue

Footnotes

¹ The sprinkler temperature rating is stamped on the deflector.

² Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

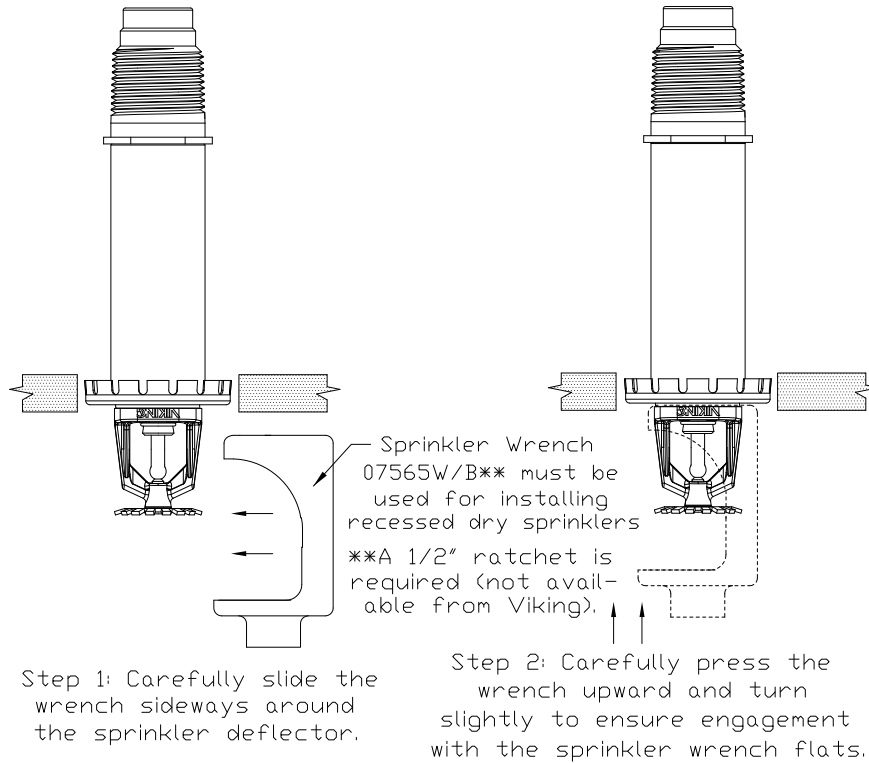


Figure 2: Wrench 07565W/B for Adjustable Recessed Dry Pendent Sprinklers



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Approval Chart

Stainless Steel Dry Pendent Sprinklers
Maximum 175 PSI (12 bar) WWP

Temperature	KEY
Finish	
A1X ← Escutcheon (if applicable)	

Sprinkler Base Part Number ¹	SIN	Style	Thread Size		Nominal K-Factor ²		Order Length Increment		Listings and Approvals ⁴							
			NPT	BSP	U.S.	metric ³	Inches	mm	cULus	FM	NYC	VdS	LPCB	CE	⚙	
10360U	VK169	Adjustable Recessed	1"	--	5.6	--	1/4"	6.35	--	--	--	--	--	--	--	--
10377U	VK169		--	25 mm	--	80.6	1/4"	6.35	--	--	--	--	--	--	--	--
09798U	VK168	Plain Barrel	1"	--	5.6	--	1/2"	12.7	--	--	--	--	--	--	--	--
09799U	VK168		--	25 mm	--	80.6	1/2"	12.7	--	--	--	--	--	--	--	--

Available Temperature Ratings

A - 155 °F (68 °C), 175 °F (79°C), 200 °F (93 °C), and 286 °F (141 °C) for the Plain Barrel
B - 155 °F (68 °C), 175 °F (79°C), and 200 °F (93 °C) for the Adjustable Recessed

Available Finishes and "A" Dimensions

- 1 - Adjustable Recessed: Stainless Steel with "A" dimensions 3-1/4" to 47-1/2" (82.5 mm to 1,207 mm)
- 2 - Plain Barrel: Stainless Steel with "A" dimensions 3" to 47" (76.2 mm to 1,194 mm)

Footnotes

- ¹ Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.
- ² K-Factor applies for standard lengths ("A" Dimensions indicated above).
- ³ Metric K-factor measurement shown is when pressure is measured in Bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.
- ⁴ Viking Stainless Steel Dry Pendent Sprinklers have no Listings or Approvals.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page DRY1-3 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

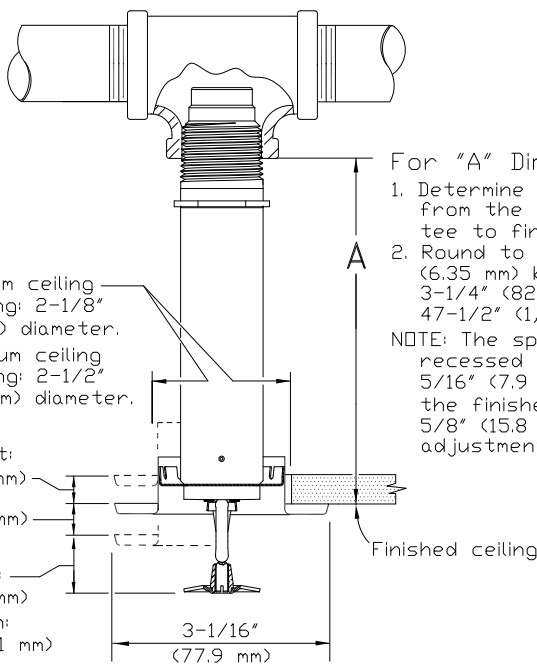


Figure 3: Adjustable Recessed Dry Pendent Sprinkler

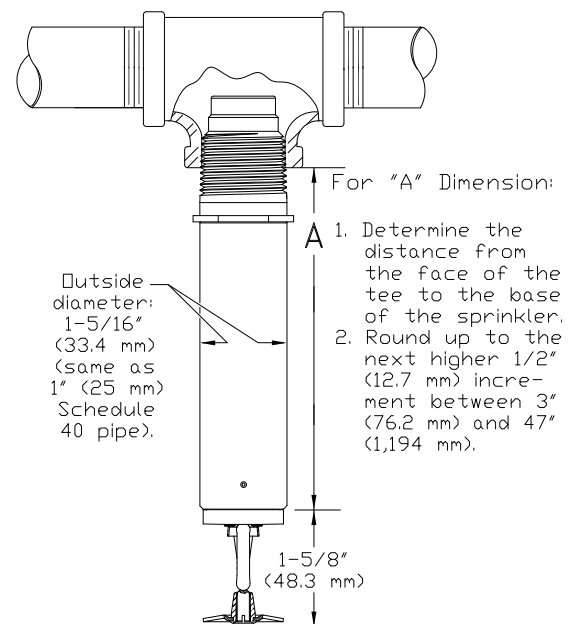


Figure 4: Plain Barrel Dry Pendent Sprinkler