TECHNICAL DATA

SPRINKLER WATER SHIELDS AND GUARDS

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
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1. DESCRIPTION

Viking Model A-1, B-1, and C-1 Sprinkler Water Shields and Guards are used in conjunction with Viking frame style upright or pendent sprinklers where allowed by the approvals. (Refer to the Approval Chart) The guards are hard-wire cages designed to encase the sprinklers and protect them from mechanical damage. They are recommended for areas where sprinklers are installed at a low elevation and/or near a high degree of human or mechanical activity.

Water shields protect the sprinklers' heat-sensing operating element from water spray discharge from sprinklers located at a higher elevation. Viking frame style sprinklers with Model B-1 or C-1 Water Shields are converted to intermediate level/ rack storage sprinklers. They may be used in any application where water shielding is required, such as in-rack sprinkler systems, under grating, on pilot sprinklers for deluge systems, and outdoors as a weather shield.

NOTE: Sprinkler water shields and guards are not designed to be used on sprinklers installed in recessed escutcheons.

2. LISTINGS AND APPROVALS

WARNING: Cancer and Reproductive Harm- www.P65Warnings.ca.gov

FM Approved: Class 2091
VdS Approved: Certificate G4920022
Refer to the Approval Chart for more information.

3. TECHNICAL DATA

Specifications:

Model A-1, B-1, and C-1 Sprinkler Guards (Available since 1982)
Diameter: 2-5/16" (59 mm), **Height:** 2-1/4" (57 mm)
Model B-1 Sprinkler Water Shield (Available since 1984)
Diameter: 4-3/8" (111 mm), **Thickness:** 0.0359" (1 mm)
Model C-1 Sprinkler Water Shield (Available since 1986)
Diameter: 3-1/2" (89 mm), **Thickness:** 0.0359" (1 mm)

Material Standards:

Sprinkler Guards: UNS-G10100 Bright Basic Steel Wire
Water Shields: UNS-G10080 Cold Rolled Steel

TABLE 1: ORDERING INFORMATION
Sprinklers must be ordered separately. Refer to the appropriate sprinkler Technical Data Page

Part Number	Description	Size	
		NPT	BSP
05446A	Model A-1 Guard	1/2"	15 mm
21934	Model A-1 Guard	3/4"	20 mm
05866A	Model B-1 Guard with shield	1/2"	15 mm
06509A	Model C-1 Guard with shield	1/2"	15 mm
06682A	Model C-1 Guard with shield	3/4"	20 mm
06467B	Model C-1 Water Shield	1/2"	15 mm
06656B	Model C-1 Water Shield	3/4"	20 mm
06471A*	Model C-1 Guard	1/2"	15 mm
06471A*	Model C-1 Guard	3/4"	20 mm

* *Must be installed in conjunction with the Model C-1 Water Shield.*



Model A-1 Sprinkler Guard



Model B-1 Upright Water Shield and Guard Assembly



Model C-1 Pendent Water Shield and Guard Assembly



Model C-1 Pendent Water Shield



Model C-1 Pendent Guard

Figure 1: Guards and Shields

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4. INSTALLATION

NOTE: Viking Model A-1, B-1, and C-1 Sprinkler Water Shields and Guards are not available factory pre-assembled with the sprinklers. They must be ordered separately and then field installed onto the Viking frame style sprinklers.

Refer to the appropriate Viking sprinkler Technical Data Page for warnings and additional installation instructions. Then install units according to the following steps.

A. MODEL A-1 SPRINKLER GUARD

Viking frame style sprinklers must be installed on the system prior to adding the Model A-1 Sprinkler Guards onto the sprinklers. After the sprinklers are installed:

1. Remove the retaining ring from the Model A-1 Sprinkler Guard.
2. Spread and hold the two bracket halves at the base of the guard just enough to place the guard over the deflector and wrench boss of the sprinkler.

NOTICE
Excessive spreading of the guard may break the weld.

3. With the sprinkler inside the sprinkler guard, orient the guard with the heavy wire base parallel to the sprinkler wrench boss. The two halves of the bracket should grip the sprinkler in the slot between the wrench boss and the threads.
4. Press the retaining ring over the guard and toward the base of the sprinkler until the ring snaps firmly into the depressions provided on each of the six wire members of the guard.

Removal:

To remove, reverse the instructions. If the sprinkler must also be removed, follow the system instructions and notify appropriate personnel.

B. MODEL B-1 UPRIGHT SPRINKLER WATER SHIELD AND GUARD ASSEMBLY

The Model B-1 Upright Water Shield and Guard are available as a welded assembly only. Viking frame style upright sprinklers must be installed on the system prior to installing the Model B-1 Upright Water Shield and Guard Assembly onto the sprinklers. After the sprinklers are installed:

1. Position the retaining ring against the water shield.
2. Spread and hold the two bracket halves at the base of the guard just enough to place the guard over the deflector and wrench boss of the sprinkler.

NOTICE
Excessive spreading of the guard may break the weld.

3. With the sprinkler inside the sprinkler guard, orient the guard with the heavy wire base parallel to the sprinkler wrench boss. The two halves of the bracket should grip the sprinkler in the slot just below the wrench boss, and above the threads.
4. Press the retaining ring down until it slides into the notches in the six wire members of the guard.

Removal:

To remove, reverse the instructions. If the sprinkler must also be removed, follow the system instructions and notify appropriate personnel.

C. MODEL C-1 PENDENT SPRINKLER WATER SHIELDS AND GUARDS

The Model C-1 Pendent Water Shields can be installed with or without the Model C-1 Guard. However, the Model C-1 Guard cannot be installed without the Model C-1 Water Shield.

Water Shield:

1. Thread the Viking frame style pendent sprinkler into the shield. The concave surface of the shield should face the sprinkler deflector.
2. Apply a small amount of pipe-joint compound or tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet.
3. Install the sprinkler unit on the piping using the standard sprinkler wrench. DO NOT use the shield to start or thread the sprinkler into the fitting.
4. Tighten the sprinkler until the water shield is snug against the face of the fitting.

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C-1 Guard with Water Shield:

Viking frame style pendent sprinklers and Model C-1 Water Shields must be installed on the system prior to installing the Model C-1 Guard onto the sprinkler. If the Model C-1 Guard is used:

1. Remove the retaining ring from the guard.
2. Place the Model C-1 Guard over the sprinkler.
3. Spread each half of the cage slightly and gently push the cage onto the shield retainer until it snaps into place.

NOTICE

Excessive spreading of the guard may break the weld.

4. Slide the retaining ring onto the cage by pressing up until it locks into the notches on each of the six wire cage members.

Removal:

To remove, reverse the instructions. If the sprinkler must also be removed, follow the system instructions and notify appropriate personnel.

5. OPERATION

Refer to the sprinkler technical data page for the sprinkler model used. Water shields protect the sprinklers' heat-sensing operating element from water spray discharge from sprinklers located at a higher elevation. The Sprinkler Guard is a hard-wire cage designed to encase the sprinkler and protect it from mechanical damage.

6. INSPECTIONS, TESTS AND MAINTENANCE

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

7. AVAILABILITY

Viking sprinkler water shields and guards 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.

NOTICE

IMPORTANT

- **Viking Model A-1, B-1, and C-1 Sprinkler Water Shields and Guards are used in conjunction with Viking frame style ½" or 3/4" NPT (15 mm or 20 mm BSP) upright or pendent sprinklers where allowed by the approvals. (Refer to the Approval Chart.)**
- **Model A-1, B-1 and C-1 Sprinkler Water Shields and Guards are NOT designed to be used on sprinklers installed in recessed escutcheons.**
- **Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to the appropriate sprinkler data page. Viking sprinklers are designed to be installed in accordance with the latest edition of Viking technical data, the latest 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. The use of certain types of sprinklers may be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.**

⚠ WARNING

Viking products are manufactured and tested to meet the rigid requirements of the approving agency. The sprinklers are designed to be installed in accordance with recognized installation standards. Deviation from the standards or any alteration to the sprinkler after it leaves the factory including, but not limited to: painting , plating, coating, or modification, may render the sprinkler inoperative and will nullify the approval and any guarantee made by The Viking Corporation.

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APPROVAL CHART

Guard Model	Sprinkler SIN	FM	VdS
A-1	VK100	✓	
	VK102	✓	
	VK108	✓	
	VK110		
	VK130	✓	
	VK132	✓	
	VK200	✓	
	VK202	✓	
	VK206	✓	
	VK300	✓	
	VK302	✓	
	VK350	✓	
	VK352	✓	
B-1	VK100	✓	✓[1]
	VK108	✓	✓[1]
	VK200	✓	✓[1]
	VK300	✓	✓[1]
	VK350	✓	✓[1]
C-1	VK102		✓[1]
	VK110		✓[1]
	VK202		✓[1]
	VK206	✓	✓[1]
	VK302	✓	✓[1]
	VK352	✓	✓[1]

[1] For VdS, only the 3/4” guard PN 06656B is approved.

[2] This table shows the listing and approvals available at the time of printing. Other approvals may be in process.