



TECHNICAL DATA

APPROVED SPRINKLERS FOR USE WITH FOAM CONCENTRATES

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
 Visit the Viking website for the latest edition of this technical data page.

1. GENERAL DESCRIPTION

Viking Pendent and Upright Foam-Water Sprinklers are non-aspirated foam discharge devices. Viking Pendent and Upright Foam-Water Sprinklers are FM Approved in both closed sprinkler (with bulb) and open sprinkler (bulb removed) configurations.

Features:

- Tested and Approved as foam-water sprinklers with specific foam concentrates (see Performance Data).
- K-factors available: K5.6 (K80.6), K8.0 (K115.2), and K11.2 (K161.3)

For use in high risk applications such as warehouses, aircraft hangers, oil and chemical loading areas, generator rooms, petro-chemical, pharmaceutical and alcohol production plants.

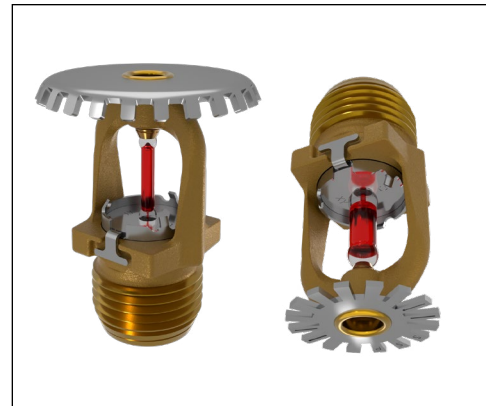
2. LISTINGS AND APPROVALS

Viking foam water sprinklers are FM Approved as part of a fire extinguishing system combining designated foam concentrates, bladder tanks and proportioning devices. Approved system components can be found at www.approvalguide.com.



FM Approved – Low Expansion Foam Systems (FM5130)

“SFFF compatible” refers to this product as being part of a SFFF foam system that has been tested to recognized standards. Not all configurations are available. Please consult technical data and/or the Approval for usage requirements.



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

3. TECHNICAL DATA

Please refer to relevant sprinkler data page.

4. SCOPE OF DELIVERY

Ensure that all components are complete and in good condition. Viking sprinklers are supplied boxed with protective shield or cap.

5. AVAILABILITY

The product is available directly from Viking and official distributors only.

Americas:

The Viking Corporation
 5150 Beltway SE
 Caledonia, MI 49316
 Tel.: (800) 968-9501
 Fax: 269-818-1680
 Technical Services: 1-877-384-5464
techsvcs@vikingcorp.com

EMEA:

Viking S.A.
 21, Z.I. Haneboesch
 L-4562 Differdange / Niederkorn
 Tel.: +352 58 37 37 – 1
 Fax: +352 58 37 36
vikinglux@viking-emea.com

Asia Pacific (APAC) Main Office:

The Viking Corporation (Far East) Pte. Ltd.
 69 Tuas View Square
 Westlink Techpark, Singapore 637621
 Tel: (+65) 6 278 4061
 Fax: (+65) 6 278 4609
vikingAPAC@vikingcorp.com

6. INSTALLATION

Refer to appropriate Installation Standards (i.e. NFPA, VdS, LPCB, etc.) and / or applicable FM Global Property Loss Prevention Data Sheets such as 4-12, Foam-Water Sprinkler Systems.

7. OPERATION

During fire conditions, the heat-sensitive liquid in the glass bulb expands, causing the glass to shatter, releasing the pip cap and sealing spring assembly. Water or Foam/Water Solution flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to extinguish or control the fire.



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8. GUARANTEE

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

9. INSPECTION, TESTS AND MAINTENANCE

Refer to respective requirements, according to the relevant standards for Inspection, Testing and Maintenance. Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

If applicable, refer to FM Global Property Loss Prevention Datasheet 4-12 for specific test and commissioning criteria. In addition, the "Authority Having Jurisdiction" (AHJ) may have additional maintenance, testing and inspection requirements that must be followed.

WARNING

Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection capabilities of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected areas.

10. DISPOSAL



At end of use the product described here should be disposed of via the national recycling system.

11. ACCESSORIES AND SPARE PARTS

Please refer to relevant sprinkler data pages.



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PERFORMANCE DATA

HYDROCARBON FUELS ¹																
Foam Concentrate		Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed ² Foam Design Density		Water Discharge Density		Tested ³ Sprinkler Pressure		Approval
						Min.		Max.								
		U.S.	Metric ⁴	Upright	Pendent	ft.	m	ft.	m	gpm/ft ²	Lpm/m ²	gpm/ft ²	Lpm/m ²	PSI	bar	
VIKING FOAM	ARK (3%)	5.6	80.6	VK1001 VK3001	-	6.0	1.8	24.8	7.6	0.30	12,2	0.30	12,2	29	2,0	FM
		5.6	80.6	-	VK1021 VK3021	6.0	1.8	20	6.1	0.30	12,2	0.30	12,2	29	2,0	FM
		8.0	115.2	VK200 VK204 VK350 VK351		9.0	2,7	45	13,7	0.40	16,3	0.40	16,3	25	1,72	FM
		8.0	115.2	-	VK2021	8.5	2,6	44	13,4	0.30	12,2	0.30	12,2	14	0,97	FM
		11.2	161.3	VK530 VK531	-	9.0	2,7	45	14	0.40	16,3	0.40	16,3	13	0,89	FM
		11.2	161.3	-	VK377 VK536	6.0	1.8	25.2	8.0	0.40	16,3	0.40	16,3	13	0,89	FM

¹ This chart shows approvals available at the time of printing.

² Density indicated is minimum application density required per FM5130 Standard for Foam Extinguishing Systems. This density cannot be reduced.

³ The pressure indicated is the minimum starting pressure required for the sprinkler. However, the minimum density shown overrides the minimum starting pressure (depending on head spacing) and cannot be reduced.

⁴ Metric K-factor shown is for use when pressure is measured in bar. When pressure is measured in kPa, divide the metric K-factor shown by 10.0.



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ALCOHOL - IPA ¹													
Foam Concentrate	Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed ² Foam Design Density		Tested ³ Sprinkler Pressure		Approval
	U.S.	Metric ⁴	Upright	Pendent	ft.	m	ft.	m	gpm/ft ²	Lpm/m ²	PSI	bar	
VIKING FOAM ARK (3%)	5.6	80.6	VK1001 VK3001	-	6.0	1,8	24,8	7,6	0.30	12,2	29	2,0	FM
	5.6	80.6	-	VK1021 VK3021	6.0	1,8	24,0	7,3	0.30	12,2	29	2,0	FM
	8.0	115.2	VK200 VK204 VK350 VK351	-	6.5	2,0	45	13,7	0.40	16,3	25	1,7	FM
	8.0	115.2	-	VK2021	6.0	1,8	44	13,4	0.30	12,2	14	0,97	FM
	11.2	161.3	-	VK377 VK536	6.0	1,8	45,0	13,7	0.40	16,3	13	0,89	FM
	11.2	161.3	VK530 VK531	-	6.0	1,8	45,0	13,7	0.40	16,3	13	0,89	FM

¹ This chart shows approvals available at the time of printing.

² Density indicated is minimum application density required per FM5130 Standard for Foam Extinguishing Systems. This density cannot be reduced.

³ The pressure indicated is the minimum starting pressure required for the sprinkler. However, the minimum density shown overrides the minimum starting pressure (depending on head spacing) and cannot be reduced.

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KETONE - ACETONE¹

Foam Concentrate		Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed ² Foam Design Density		Tested ³ Sprinkler Pressure		Approval
						Min.		Max.						
		U.S.	Metric ⁴	Upright	Pendent	ft.	m	ft.	m	gpm/ft ²	Lpm/m ²	PSI	bar	
VIKING FOAM	ARK (3%)	5.6	80.6	VK1001 VK3001	-	6.0	1,8	24.8	7,6	0.30	12,2	29	2,0	FM
		5.6	80.6	-	VK1021 VK3021	6.0	1,8	24.0	7,3	0.30	12,2	29	2,0	FM
		8.0	115.2	VK200 VK204 VK350 VK351	-	6.5	2,0	45.0	13,7	0.30	12,2	14	0,97	FM
		8.0	115.2	-	VK2021	6.0	1,8	44.0	13,4	0.30	12,2	14	0,97	FM
		11.2	161.3	VK530 VK531	-	6.0	1,8	45.0	13,7	0.30	12,2	7	0,48	FM
		11.2	161.3	-	VK377 VK536	6.0	1,8	25.2	8,0	0.30	12,2	7	0,48	FM

¹ This chart shows approvals available at the time of printing.

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³ The pressure indicated is the minimum starting pressure required for the sprinkler. However, the minimum density shown overrides the minimum starting pressure (depending on head spacing) and cannot be reduced.

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ETHANOL¹

Foam Concentrate		Nominal K-factor		Sprinkler Identification Number (SIN)		Height				Listed ² Foam Design Density		Tested ³ Sprinkler Pressure		Approval
						Min.		Max.						
		U.S.	Metric ⁴	Upright	Pendent	ft.	m	ft.	m	gpm/ft ²	Lpm/m ²	PSI	bar	
VIKING FOAM	ARK (3%)	8.0	115.2	VK200 VK204 VK350 VK351	-	6.5	2	45	13,7	0.30	12.2	14	0,97	FM

¹ This chart shows approvals available at the time of printing.

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