



Report of Materials and Equipment Acceptance Division

NYC Department of Buildings
280 Broadway, New York, NY 10007
Patricia Lancaster, FAIA, Commissioner
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Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use in accordance with the Report of Materials and Equipment Acceptance (MEA) Division.

Patricia J. Lancaster, A.I.A., Commissioner
MEA 89-92-E Vol.30
Report of Material and Equipment Acceptance Division

Manufacturer	The Viking Corporation
Trade Name	Viking Automatic Sprinklers
Product	Automatic fire sprinklers for fire protection service
Pertinent Code Section(s)	Subchapter 17 and Reference Standard 17-2
Prescribed Tests	UL 199 and UL 1626
Laboratories	Underwriter's Laboratories, Inc.
Test Report(s)	
1) UL File Ex3836, Projects 03CA06609, 03NK33586 and 05NK05068 issued September 25, 2003, revised April 24, 2006.	
2) UL File Ex3836, Projects 02NK26636, 03NK11223, 03NK08543 and 03NK17401, issued February 4, 2003, revised April 13, 2004.	
3) UL File Ex3836, Projects 03NK5637, 03NK17401, 03NK08543, issued June 12, 2003, revised April 13, 2004.	
4) UL File EX3836, Project 03NK23322, issued October 21, 2003.	
5) UL File Ex3836, Project 04NK21104, issued March 18, 2005.	
6) UL letter dated July 20, 2005.	

Description – Residential Type Automatic fire sprinklers, of the following types and temperature ratings:

Model No.	Description		
SIN VK435	ITEM 1: Freedom™ Residential Pendent and Recessed Pendent Sprinkler SIN VK435 (3.1K-Factor), nominal 3 mm glass bulb type, ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 155 °F or 175 °F. UL File Ex3836, Projects 03CA06609, 03NK33586 and 05NK05068, Issued September 25, 2003, Revised April 24, 2006.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).		
	12' x 12'	9 gpm @ 8.4 psi	155 °F and 175 °F
	14' x 14'	10 gpm @ 10.4 psi	155 °F and 175 °F
SIN VK436	ITEM 2: Freedom™ Residential Pendent and Recessed Pendent Sprinkler SIN VK436 (5.2 K-Factor), nominal 3mm glass bulb type, ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 155 °F or 175 °F. UL File Ex3836, Projects 02NK26636, 03NK11223, 03NK08543 and 03NK17401, Issued February 4, 2003, Revised April 13, 2004.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Temperature Ratings
	Installed below smooth, flat, horizontal ceilings and horizontal ceilings with beams in accordance with the Manufacturer's installation instructions. Includes ceilings with slopes up to and including 2/12 (9.5°).		
	16' x 16'	14 gpm @ 7.2 psi	155 °F and 175 °F
	18' x 18'	17 gpm @ 10.7 psi	155 °F and 175 °F
	20' x 20'	20 gpm @ 14.8 psi	155 °F and 175 °F
	Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.		
	18' x 18'	17 gpm @ 10.7 psi	155 °F and 175 °F
	Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.		
	16' x 16'	14 gpm @ 7.2 psi	155 °F and 175 °F
	18' x 18'	18 gpm @ 12 psi	155 °F only
	18' x 18'	21 gpm @ 16.3 psi	175 °F only
	20' x 20'	20 gpm @ 14.8 psi	155 °F only
20' x 20'	21 gpm @ 16.3 psi	175 °F only	

Model No.	Description			
SIN VK436 Concealed	ITEM 3: Freedom™ Residential Concealed Pendent Sprinkler SIN VK436 (5.2 K-Factor), nominal 3mm glass bulb type, ½" NPT. Sprinkler temperature ratings: 135 °F or 155 °F with a 135 °F cover plate. For installation in residential occupancies with wet systems only. 175 psig max. The deflector must be located 3/8" to 7/8" below the ceiling. Finishes: Polished Chrome or painted UL File Ex3836, Projects 02NK26636, 03NK11223, 03NK08543 and 03NK17401, Issued February 4, 2003, Revised April 13, 2004.			
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Sprinkler Temperature Ratings	Cover Assembly Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).			
	14' 14'	14 gpm @ 7.2 psi	155 °F	135 °F
	16' x 16'	15 gpm @ 8.3 psi	155 °F	135 °F
	18' x 18'	17 gpm @ 10.7 psi	155 °F	135 °F
	20' x 20'	20 gpm @ 14.8 psi	155 °F	135 °F
	Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.			
	20' x 20'	20 gpm @ 14.8 psi	155 °F	135 °F
	Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.			
	16' x 16'	15 gpm @ 8.3 psi	155 °F	135 °F
	8' x 18'	23 gpm @ 19.6 psi	135 °F	135 °F
	20' x 20'	28 gpm @ 29 psi	135 °F	135 °F
	SIN VK437	ITEM 4: Freedom Residential Fusible Element Pendent and Recessed Pendent Sprinkler SIN VK437 (5.2 K-Factor), ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 165 °F or 205 °F. UL File Ex3836, Project 03NK23322, Issued October 21, 2003.		
Maximum Areas of Coverage		Minimum Water Supply Requirements	Temperature Ratings	
Installed below smooth, flat, horizontal ceilings, including ceilings and horizontal ceilings with beams in accordance with the Manufacturer's installation instructions. Includes ceilings with slopes up to and including 2/12 (9.5°).				
16' x 16'		14 gpm @ 7.2 psi	165 °F and 205 °F	
18' x 18'		17 gpm @ 10.7 psi	165 °F and 205 °F	
20' x 20'		20 gpm @ 14.8 psi	165 °F and 205 °F	
Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.				
18' x 18'		17 gpm @ 10.7 psi	165 °F and 205 °F	
Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.				
16' x 16'		14 gpm @ 7.2 psi	165 °F and 205 °F	

	18' x 18'	18 gpm @ 12.0 psi	165 °F
	18' x 18'	21 gpm @ 16.3 psi	205 °F
	20' x 20'	20 gpm @ 14.8 psi	165 °F
	20' x 20'	21 gpm @ 16.3 psi	205 °F
	ITEM 5: Freedom™ Residential Pendent and Recessed Pendent Sprinkler SIN VK438 (4.9 K-Factor), nominal 3 mm glass bulb type, ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 155 °F or 175 °F. UL File Ex3836, Projects 03NK5637, 03NK08543 and 03NK17401, Issued June 12, 2003, Revised April 13, 2004.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings and horizontal ceilings with beams in accordance with the Manufacturer's installation instructions. Includes ceilings with slopes up to and including 2/12 (9.5°).		
	12' x 12'	13 gpm @ 7.0 psi	155 °F and 175 °F
	14' x 14'	13 gpm @ 7.0 psi	155 °F and 175 °F
	16' x 16'	13 gpm @ 7.0 psi	155 °F and 175 °F
	18' x 18'	17 gpm @ 12.0 psi	155 °F and 175 °F
	Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.		
	16' x 16'	13 gpm @ 7.0 psi	155 °F
	16' x 16'	14 gpm @ 8.2 psi	175 °F
	18' x 18'	17 gpm @ 12.0 psi	155 °F and 175 °F
SIN VK438			
Model No.	Description		
	ITEM 6: Freedom™ Residential Concealed Pendent Sprinkler SIN VK438 (4.9 K-Factor), nominal 3mm glass bulb type, ½" NPT. Sprinkler temperature ratings: 155 °F with a 135 °F cover plate. For installation in residential occupancies with wet systems only. 175 psig max. The deflector must be located 3/8" to 7/8" below the ceiling. Finishes: Polished Chrome or painted UL File Ex3836, Projects 03NK5637, 03NK08543 and 03NK17401, Issued June 12, 2003, Revised April 13, 2004.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Sprinkler Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).		
	12' x 12'	13 gpm @ 7.0 psi	155 °F
	14' x 14'	13 gpm @ 7.0 psi	155 °F
	16' x 16'	14 gpm @ 8.2 psi	155 °F
	18' x 18'	17 gpm @ 12.0 psi	155 °F
	Installed below ceilings with slopes up to and including a 4/12 (18.4°) pitch.		
	16' x 16'	16 gpm @ 10.7 psi	155 °F
			135 °F
SIN VK438 Concealed			
	ITEM 7: Freedom™ Residential Fusible Element Pendent and Recessed		

SIN VK439	Pendent Sprinkler SIN VK439 (4.9 K-Factor), ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 165 °F or 205 °F. UL File Ex3836, Project 03NK23322, Issued October 21, 2003.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings and horizontal ceilings with beams in accordance with the Manufacturer's installation instructions. Includes ceilings with slopes up to and including 2/12 (9.5°).		
	12' x 12'	13 gpm @ 7.0 psi	165 °F and 205 °F
	14' x 14'	13 gpm @ 7.0 psi	165 °F and 205 °F
	16' x 16'	13 gpm @ 7.0 psi	165 °F and 205 °F
	18' x 18'	17 gpm @ 12.0 psi	165 °F and 205 °F
	Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.		
	16' x 16'	13 gpm @ 7.0 psi	165 °F
	16' x 16'	14 gpm @ 8.2 psi	205 °F
	18' x 18'	17 gpm @ 12.0 psi	165 °F and 205 °F
SIN VK452	ITEM 8: Freedom™ Residential HSW and Recessed HSW Sprinkler SIN VK452 (4.0 K-Factor), nominal 3 mm glass bulb type, ½" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 155 °F or 175 °F. UL File Ex3836, Project 04NK21104, Issued March 18, 2005.		
	Maximum Areas of Coverage	Minimum Water Supply Requirements	Temperature Ratings
	Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°). Deflector must be located between 4" and 6" below the ceiling.		
	12' x 12'	11 gpm @ 7.6 psi	155 °F
	12' x 12'	12 gpm @ 9.0 psi	175 °F
	14' x 14'	12 gpm @ 9.0 psi	155 °F and 175 °F
	16' x 16'	15 gpm @ 14.1 psi	155 °F and 175 °F
	Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°). Deflector must be located between 6" and 12" below the ceiling.		
	12' x 12'	12 gpm @ 9.0 psi	155 °F and 175 °F
	14' x 14'	13 gpm @ 10.6 psi	155 °F and 175 °F
	16' x 16'	15 gpm @ 14.1 psi	155 °F and 175 °F
Model No.	Description		
	ITEM 9: Freedom™ Residential HSW and Recessed HSW		

SIN VK450	Sprinkler SIN VK450 (4.2 K-Factor), nominal 3 mm glass bulb type, 1/2" NPT. For installation in residential occupancies with wet systems only. 175 psig max. Finishes: Brass, Chrome-Enloy®, or painted. Temperature ratings: 155 °F or 175 °F. UL File Ex3836, Projects 03CA06609, 03NK33586, and 05NK05068, Issued September 25, 2003, Revised April 24, 2006.		
Maximum Areas of Coverage	Deflector Location	Minimum Water Supply Requirements	Temperature Ratings
Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).			
12' x 12'	4" to 6" below the ceiling	12 gpm @ 8.2 psi	155 °F and 175 °F
14' x 14'	4" to 6" below the ceiling	14 gpm @ 11.1 psi	155 °F and 175 °F
16' x 16'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
16' x 18'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
16' x 20'	4" to 6" below the ceiling	22 gpm @ 27.4 psi	155 °F and 175 °F
16' x 22' (with standard surface-mounted Escutcheons or Model F-1 Escutcheons only)	4" to 6" below the ceiling	26 gpm @ 38.3 psi	155 °F
16' x 16'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
16' x 18'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
16' x 20'	6" to 12" below the ceiling	25 gpm @ 35.4 psi	155 °F and 175 °F
Installed below sloped ceilings with slopes up to and including a 4/12 (18.4°) pitch. Sprinklers <u>must</u> be installed <u>at the side</u> with spray directed <u>across</u> the slope in accordance with the Manufacturer's instructions. The maximum number of sprinklers per compartment is three.			
16' x 16'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
16' x 18'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
Installed below sloped ceilings with slopes up to and including a 4/12 (18.4°) pitch.			

<p align="center">Sprinklers <u>must</u> be installed at the side with spray directed <u>across</u> the slope in accordance with the manufacturer's instructions. The maximum number of sprinklers per compartment is three.</p>			
16' x 16'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
16' x 18'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
<p align="center">Installed below sloped ceilings with slopes up to and including 8/12 (33.7°) pitch. Sprinklers <u>must</u> be installed <u>at the side</u> with spray directed <u>across</u> the slope in accordance with the Manufacturer's instructions. The maximum number of sprinklers per compartment is three.</p>			
16' x 16'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
<p align="center">Installed below sloped ceilings with slopes up to and including 8/12 (33.7°) pitch. Sprinklers <u>must</u> be installed <u>at the peak</u> with spray directed <u>down</u> the slope in accordance with the Manufacturer's instructions.</p>			
12' x 12'	4" to 6" below the ceiling	12 gpm @ 8.2 psi	155 °F and 175 °F
14' x 14'	4" to 6" below the ceiling	14 gpm @ 11.1 psi	155 °F and 175 °F
16' x 16'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
16' x 18'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
16' x 20'	4" to 6" below the ceiling	22 gpm @ 27.4 psi	155 °F and 175 °F
<p align="center">Installed below sloped ceilings with slopes up to and including 8/12 (33.7°) pitch. Sprinklers <u>must</u> be installed <u>at the peak</u> with spray directed <u>down</u> the slope in accordance with the Manufacturer's instructions</p>			
16' x 16'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
16' x 18'	6" to 12" below the ceiling	20 gpm @ 22.7 psi	155 °F and 175 °F
16' x 20'	6" to 12" below the ceiling	25 gpm @ 35.4 psi	155 °F and 175 °F

Pursuant to "Promulgation of the rules relating to Material and Equipment Application Procedures" dated November 5, 1992, The Bureau of Fire Prevention has no objection letter dated December 19, 2005, F.P. Index # 0508018D

Terms and Conditions- That the above units be accepted on condition that all uses:

1. Installation shall comply with all applicable New York City codes, regulations, and testing requirements in particular with the requirements of Subchapter 17 and RS 17-2, RS 17-2A and RS 17-2B of the administrative code, and the NFPA Code 13, 13R and 13D.
2. Underwriters Laboratories Inc.'s listing requirements (including the temperature rating of VK437 and VK439 for temperature of 165°F) and limitations shall be adhering to.
3. Manufacturer's installations, maintenance procedures and limitations shall be complied with.
4. All shipments and deliveries of such equipment shall be provided with a metal tag, certifying that the equipment shipped or delivered is equivalent to those tested and accepted for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance July 14, 2006
Examined By Donald [Signature]