



NYC Department of Buildings  
 280 Broadway, New York, NY 10007  
 Patricia Lancaster, FAIA, Commissioner  
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## Report of Materials and Equipment Acceptance Division

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(s) – 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
	<p><b>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.</b></p>

<b>SIN VK435</b>	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
	<b>Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).</b>		
	<b>12' x 12'</b>	<b>9 gpm @ 8.4 psi</b>	<b>155 °F and 175 °F</b>
	<b>14' x 14'</b>	<b>10 gpm @ 10.4 psi</b>	<b>155 °F and 175 °F</b>
<b>SIN VK436</b>	<b>ITEM 2: Freedom™ Residential Pendant and Recessed Pendant Sprinkler SIN VK436 (5.2 K-Factor), nominal 3mm 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 02NK26636, 03NK11223, 03NK08543 and 03NK17401, Issued February 4, 2003, Revised April 13, 2004.</b>		
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
	<b>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°).</b>		
	<b>16' x 16'</b>	<b>14 gpm @ 7.2 psi</b>	<b>155 °F and 175 °F</b>
	<b>18' x 18'</b>	<b>17 gpm @ 10.7 psi</b>	<b>155 °F and 175 °F</b>
	<b>20' x 20'</b>	<b>20 gpm @ 14.8 psi</b>	<b>155 °F and 175 °F</b>
	<b>Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.</b>		
	<b>18' x 18'</b>	<b>17 gpm @ 10.7 psi</b>	<b>155 °F and 175 °F</b>
	<b>Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.</b>		
	<b>16' x 16'</b>	<b>14 gpm @ 7.2 psi</b>	<b>155 °F and 175 °F</b>
	<b>18' x 18'</b>	<b>18 gpm @ 12 psi</b>	<b>155 °F only</b>
	<b>18' x 18'</b>	<b>21 gpm @ 16.3 psi</b>	<b>175 °F only</b>
	<b>20' x 20'</b>	<b>20 gpm @ 14.8 psi</b>	<b>155 °F only</b>
	<b>20' x 20'</b>	<b>21 gpm @ 16.3 psi</b>	<b>175 °F only</b>

Model No.	Description			
<b>SIN VK436 Concealed</b>	<b>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.</b>			
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Sprinkler Temperature Ratings</b>	<b>Cover Assembly Temperature Ratings</b>
	<b>Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).</b>			
	14' x 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'	23 gpm @ 10.7 psi	155 °F	135 °F
	20' x 20'	20 gpm @ 14.8 psi	155 °F	135 °F
	<b>Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.</b>			
	20' x 20'	20 gpm @ 14.8 psi	155 °F	135 °F
	<b>Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.</b>			
	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
	<b>SIN VK437</b>	<b>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.</b>		
<b>Maximum Areas of Coverage</b>		<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>	
<b>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°).</b>				
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	
<b>Installed below ceilings with slopes up to and including 4/12 (18.4°) pitch.</b>				
18' x 18'		17 gpm @ 10.7 psi	165 °F and 205 °F	
<b>Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.</b>				
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
SIN VK438	<b>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.</b>		
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
	<b>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°).</b>		
	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
	<b>Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.</b>		
	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
	<b>Model No.</b>	<b>Description</b>	
SIN VK438 Concealed	<b>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.</b>		
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Sprinkler Temperature Ratings</b>
	<b>Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).</b>		
	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
	<b>Installed below ceilings with slopes up to and including a 4/12 (18.4°) pitch.</b>		
	16' x 16'	16 gpm @ 10.7 psi	155 °F
	16' x 16'	16 gpm @ 10.7 psi	135 °F
<b>ITEM 7: Freedom™ Residential Fusible Element Pendent and Recessed</b>			

SIN VK439	<b>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.</b>		
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
	<b>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°).</b>		
	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
	<b>Installed below ceilings with slopes up to and including 8/12 (33.7°) pitch.</b>		
	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	<b>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, 2006.</b>		
	<b>Maximum Areas of Coverage</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
	<b>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.</b>		
	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
	<b>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.</b>		
	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	
<b>Model No.</b>		<b>Description</b>	
		<b>ITEM 9: Freedom™ Residential HSW and Recessed HSW</b>	

<b>SIN VK450</b>	<b>Sprinkler SIN VK450 (4.2 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 03CA06609, 03NK33586, and 05NK05068, Issued September 25, 2003, Revised April 24, 2006.</b>		
<b>Maximum Areas of Coverage</b>	<b>Deflector Location</b>	<b>Minimum Water Supply Requirements</b>	<b>Temperature Ratings</b>
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
<b>Installed below smooth, flat, horizontal ceilings, including ceilings with slopes up to and including 2/12 (9.5°).</b>			
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
<b>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.</b>			
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
<b>Installed below sloped ceilings with slopes up to and including a 4/12 (18.4°) pitch.</b>			

<b>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.</b>			
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
<b>Installed below sloped ceilings with slopes up to and including <u>8/12 (33.7°)</u> 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.</b>			
16' x 16'	4" to 6" below the ceiling	18 gpm @ 18.4 psi	155 °F and 175 °F
<b>Installed below sloped ceilings with slopes up to and including <u>8/12 (33.7°)</u> 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.</b>			
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
<b>Installed below sloped ceilings with slopes up to and including <u>8/12 (33.7°)</u> 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</b>			
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]