

KIR

VIKING®



MAIRY



Address 5A Khaled Ibn AlWalid St.,
Sheraton, Heliopolis,
Cairo, Egypt

Tel 2267 5339 - 2266 4920

Fax 2266 4930

Mobile 0122 7389 528 - 0122 7905 248

0121 1178 250 - 0101 9542 941

e-mail info@kirmary.com

sales@kirmary.com

website www.kirmary.com



1	VIKING Distribution Letter
2	Viking Approval
3	VIKING Sprinklers Catalogue
4	VIKING Sprinklers Quick References
5	VIKING Sprinklers Technical Data



VIKING Distribution Letter

Viking S.A. | Z.I. Haneboesch | L-4562 Differdange

TO WHOM IT MAY CONCERN

Dated: 25 July 2025

Subject: Distributorship Letter

We, Viking S.A, the leading manufacturer and supplier of Fire protection products with office based in Luxembourg 21 Zone Industrielle Haneboesch L-4562 Differdange/Niederkorn, hereby confirm and certify that M/S Kirmary for Engineering Supplies, with main office in 5A Khaled Ebn El Waleed st., Sheraton, Cairo, Egypt, has access to our Water Based products in Egyptian Market.

M/S. Kirmary is a Viking S.A's authorised Non-Exclusive Distributor of, Water based Fire Protection products and systems for the Viking Brand and "Fireking", line of Hydrants, Gate Valves, Check Valves and Strainers.

The product that are sold by Kirmary, will be covered by the Viking standard terms and conditions of Sales. This letter is issued upon their request and valid until 31 July 2026.

Should you have any questions feel free to contact us.

Sincerely

Viking S.A.



Uzair Ghazi



Sales Leader - MEA



VIKING APPROVAL

Submittal For Approval Of Materials

Date: 23/04/2026

Request No: P0152-K00146-OCC-HT01-XX-MS-ME-000129-00

Project No. & Title: WWE241135 - Ras El Hekma Sales Resort.

Employer: MUDON	Engineer: dar	Contractor: ORASCOM CONSTRUCTION
---------------------------	-------------------------	---

1. Material Description (one item only on this form) :

Fire fighting sprinklers / Viking by Kirmay

Area of application :	General
Drawing ref. :	B.O.Q. ref. no.:
Specification Ref. :	WATER-BASED FIRE-SUPPRESSION SYSTEMS 211000
Standards:	
Compliance sheet-technical data sheet- company Profile-Certificates -Previous Approvals-reference list	

2. Manufacturer / Supplier

Company Name :	Viking
Address :	
Local agent :	Kirmay

3. Delivery :

Country of origin :	USA
Availability	☐ Locally Manufactured ☐ Overseas
Delivery :	Ex-works/ total duration [] [] Estimated time of arrival on site
Program :	Date material required on site [] Latest date for order []

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Nader Gamal Signature: *Nader Gamal*

4. Engineer's Representative Comments:

Refer to the attached comments in the CRS sheet. <i>Ahmed Hozayen</i> 26/4/2026 <i>E. Azer</i> Signature: Date: 27/04/2026	☒ Approved
	☒ Approved as noted
	☐ Revise and resubmit
	☐ Rejected
	☐ Sample required
	☐ Tests required
	☐ Additional information required
	☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

Received
30-9-2020
Submittal for approval of materials

Date: 30/9/2020

Request no: ACS- MAT- MFF - 0030Rev 00

Project no. & title: E16104-0400S New Administrative Capital -The SENATOR Building

Employer: 	Engineer: 	Contractor: 
---	---	---

1. Material description (one item only on this form) : FIRE SPRINKLER	
Technical Submittal attached + CD Catalog	
Area of application	MECHANICAL FIRE FIGHTING SYSTEM
Drawing ref	N/A Z BOQ ref no N/A
Specification Ref	Section 15300 Standards ASTM C168, 302, 303,
Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate List of samples WITH OUT SAMPLE	
2. Manufacturer / supplier Company Name: VIKING Address: 4A KHALED IBN ALWALID ST, SHERANONI HELICCLIS CAIRO, EGYPT Local agent: KIRMARY	
3. Delivery : Ex-Stock Country of origin: USA Availability: ☐ Locally Manufactured ☒ Overseas Delivery: Ex works/ total duration [] [] Estimated time of arrival on site [] Program: Date material required on site [] Latest date for order []	
We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated, also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.	
Submitted by	Hamed Ramadan Signature: 
4. Engineer's Representative comments: see attached Comment ☐ Approved ☒ Approved as noted ☐ Revise and resubmit ☐ Rejected ☐ Sample required ☐ Tests required ☐ Additional information required ☐ Manufacturer's guarantee required Signature:  Date: 8/10/20	

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents



Submittal for approval of materials



Date: 30/8/2018

Request no: SIA-MAT-MFF-0211-Rev 01

Project no. & title: E16104 - 04005/N-01 Ministry of Foreign Affairs - Plot 9A

Employer: 	Engineer: 	Contractor: 
--	--	--

1. Material description (one item only on this form):

Fire Sprinkler

(No Sample)

dar Dar Al-Handasah
Shair and Partners

30 AUG 2018

RECEIVED

Prj. No. E16104-04005 Time: 101

Area of application: All Project

Drawing ref.:

B.O.Q. ref. no.:

Specification Ref.: 15300

Standards:

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier VIKING KERMARY

Company Name: KERMARY

Address:

Local agent:

dar Dar Al-Handasah
Shair and Partners

Project No: E16104-04005

Requies:

Item No.	Qty	Unit	Remarks
1	300		✓
2	A.Ram		✓
3	T.B.		✓
4	Mohd		✓

3. Delivery:

Country of origin:

Availability

☐ Locally Manufactured

☒ Overseas

Delivery:

Ex-works/ total duration

Estimated time of arrival on site

Program:

Date material required on site

Latest date for order

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by: Abdulsalam Adh

Signature: ash

Approved as Noted

1. Refer to attached selection sheets. Noting that contractor shall submit sample of each selected sprinkler for quality approval and to obtain final approval.
2. The quoted side wall sprinkler is not accepted, Refer to our selection and resubmit accordingly.
3. Country of origin certificate shall be included in next submission.

Yasser Amer

5/09/2018

A. Ram
6/9/18

- | | |
|-------------------------------------|-----------------------------------|
| ☐ | Approved |
| ☒ | Approved as noted |
| ☐ | Revise and resubmit |
| ☐ | Rejected |
| ☒ | Sample required |
| ☐ | Tests required |
| ☒ | Additional information required |
| ☐ | Manufacturer's guarantee required |

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

Project no. & title: Project No.E16104-0400S/T-04 Ministerial Buildings On Plot 9B&10B
Request no: 27 Oct 2018
Date: 25/10/2018
SCD-MAT-MFF-00205 Rev 00

Employer:



Engineer:

dar

Contractor:



1. Material description (one item only on this form):

Fire Sprinkler

1CD

No Sample

Area of application: Fire Fighting Network

Drawing ref: N/A

Specification Ref: 15300

B.O.Q. ref. no: N/A

Standards: N/A

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name: Viking

Address: 15 khaled ebn elwaled st, sheraton, cairo

Local agent: Kirmary

3. Delivery: Ex-Stock

Country of origin: germany

☐ Locally Manufactured

☒ Overseas

Delivery: Ex-works/ total duration

Estimated time of arrival on site

Program: Date material required on site

Latest date for order

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated, also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by:

Signature:

4. Engineer's Representative comments:

Refer to the comments on the attached sheet.

Shady elsayed

30-10-18

Signature:

A. Ra

Date: 31/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Submittal for approval of materials

dar Dar Al-Handasah
Shair and Partners

28 OCT 2018

RECEIVED

Prj. No. E16104-0400S Time

Date:

27-Oct-2018

Request no:

HAS-MAT-MFF-0150-00

Project no. & title: Ministry of Justice - Plot 19A

Employer: 	Engineer: dar	Contractor: 
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1. Material description (one item only on this form) :

Fire Fighting Sprinklers

Soft Copy And Hard Copy Of Catalogue - Without Sample

Area of application : **All Building (19A-20A)**

Drawing ref. : **All Drawings (Fire Fighting)**

B.O.Q. ref. no.: **Cluster 09A-10A - Section 15300**

Specification Ref. : **SCG-2423-MINSTRS-SPC-M-F-001-SD-01**
Section : 15300

Standards: **All American Standards**

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name :

Viking

Address :

5A Khaled Ebn Elwaleed Street, Sheraton, Cairo, Egypt

Local agent :

Kirmary Engineering Supplies Importing & Exporting Trading Agencies

3. Delivery :

Country of origin :

Availability

☐ Locally Manufactured ☒ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

dar Dar Al-Handasah (Shair and Partners)			
Project No: E16104-0400S			
Received:			
DESCRIPTION	Action	Initia	Time
T.B			
Sou			
A.Ram			
Mohand			

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by :

Eng. Akram Abdelaziz

Signature:

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady - bayed

20-10-18

22/10/18
31/10/18

Signature:

A. Ram

Date: **31/10/18**

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

dar Bar Al-Handasah
Shair and Partners

23 OCT 2018

RECEIVED

Prj. No. E16104-0400S Time 3:15

Submittal for approval of materials

Date: 23-10-18

Request no: RME-MAT-MFF-0186-00

Project no. & title: MINISTRIES' COMPLEX (Area 3A & 4A)

Employer:  ADMINISTRATIVE CAPITAL FOR URBAN DEVELOPMENT العاصمة الإدارية للتنمية العمرانية	Engineer: dar	Contractor:  Rowad Modern Engineering
---	-------------------------	--

1. Material description (one item only on this form) :

FIRE SPRINKLER

Attachment: (2 submittals+CD)WITHOUT SAMPLE

Area of application : ALL BUILDINGS

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING

Address : 5A KHALED EBN EL WALEED ST, SHERATON, CAIRO, EGYPT

Local agent : KERMARY

3. Delivery :

Country of origin :

Availability

☐ Locally Manufactured

☒ Overseas

Delivery : Ex-works/ total duration [] []
Estimated time of arrival on site [] []

Program : Date material required on site [] []
Latest date for order [] []

dar Bar Al-Handasah Shair and Partners			
Project No. E16104-0400S			
Received	By	Date	File
T.B	✓		
590			✓
A-Ran			✓
Bou			✓
Bar Egypt			

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Eng.Mohamed Fouad

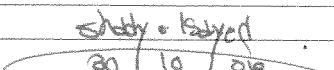
Signature: 
23/10/2018

submitted by : Eng.Wael Elragaby (project manager)

signature

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.


30/10/2018


30/10/2018

Signature:  Date: 30/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☐ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

Submittal for approval of materials



24 OCT 2018

RECEIVED

Date:

24 Oct 2018

Request no:

RSC-MAT-MFF-0142 Rev.00

Project no. & title: Proj. No. E16104-0400S Time E16104-0400S-1-05-DAR

Ministerial Buildings 13A&14A

Employer: 	Engineer: 	Contractor: 
--	--	--

1. Material description (one item only on this form) :

Fire Sprinklers

Attachment : Submittal + CD (Without Sample)

Area of application : Mechanical "Fire Fightings"

Drawing ref. : N/A

Specification Ref. : 15300

Standards:

B.O.Q. ref. no.:

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING
Address : 5A Khaled Abn Alwaled st. - Shelaton, Cairo
Local agent : KIR MARY

dar - Dar Al-Handasah (Shair and Partners)			
Project No: E16104-0400S			
Received:			
Distribution	Approved	Ex-Info	Ex-Info
T.B	/		
Sou		/	
AP		/	
Dar Egypt			

3. Delivery :

Country of origin : USA

Availability : ☐ Locally Manufactured ☒ Overseas

Delivery : Ex-works/ total duration [] []
Estimated time of arrival on site [] []

Program : Date material required on site [] []
Latest date for order [] []

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : Eng. Kerdane Ezzam

Signature: Verdone Ezzam

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

shady elsayed
30 10 018

24/10/18
31/10/18

Signature: A. Ra

Date: 31/10/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

dar

dar Dr. Al-Hundeeh,
Shair and Partners
06 NOV 2018
RECEIVED
Proj. No. E16104-04035 Time.....

Request no: TMG-MAT-MFF-00200-Rev-No 00

Employer: 	Engineer:  	Contractor : Alexandria Constructions Talaat Mostafa Group 
--	--	---

Fire Protection : Sprinkler Heads

Standards: NFPA 13- UL/FM

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

Company Name :	VIKING
Address :	USA
Local agent :	KIRMARY

d	Dar Al-Hadadeesh (Unaid and Partners)	
Promoter:	Espinoza-Gilts	
Precedent:		
B	—	Yes
Sau	—	
A. V.	—	
Famer	—	
Dar Egypt		

Availability

☐ Locally Manufactured

©Overseas

Delivery : Ex-works/ total duration [.]

Estimated time of arrival on site []

Program : _____ Date material required on site [_____]

Latest date for order []

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by: ENG: Ashraf Salah
P.M ENG: Mohamed Abd Elwahed

Signature: _____
Signature: _____

4. Engineer's Representative comments:

- Refer to The Comments on the attached sheet

shady elsayid

~~12/2/2018~~

Signature: A. Rana

Date: 18/11/18

- ☐ Approved
- ☒ Approved as noted
- ☐ Revise and resubmit
- ☐ Rejected
- ☒ Sample required
- ☐ Tests required
- ☒ Additional information required
- ☐ Manufacturer's guarantee required

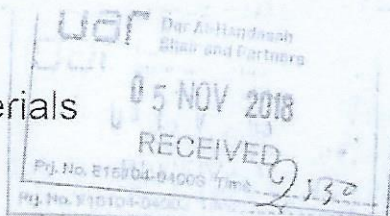
Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Attachement : 199 A4 pages + 1 CD

Distribution	Action	Filing	Signature
١. م - شرف جلال	✓		
٢. واثق القاضى		✓	

dan

Submittal for approval of materials



Date: 05-11-2018

Request no: GAM-MAT-MFF-0196-00

Project no. & title: E16104-0400S- T-07 Ministerial Buildings on Plot 17A-18A

Employer: 	Engineer: 	Contractor: 
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1. Material description (one item only on this form) :

Fire Fighting Sprinkler

NO Sample

Area of application : Fire Fighting Network

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Standards: As specified

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : VIKING

Address : CAIRO , Egypt

Local agent : LEDE

3. Delivery :

Country of origin : USA

Availability

☐ Locally Manufactured

☒ Overseas

Delivery : Ex-works/ total duration [] []

Estimated time of arrival on site [] []

Program : Date material required on site [] []

Latest date for order [] []

dar - Dar Al-Hadadash
Shaw and Partners

Project No. E16104-0400S

Distribution	Accepted	Info	File
T.B	✓		
AR	✓		
SCC	✓		

We certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely

Submitted by: (C.T.O.M) Eng. Ahmed Abdelraouf

Signature:



4. Engineer's Representative comments:

Refer to The Comments on the attached sheet.

Shady elsayed
7/11/18

10/11/18

Signature:

A. Ra

Date: 11/11/18

☒ Approved Ministries 17,18 A

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☒ Sample required

☐ Tests required

☒ Additional information required

☐ Manufacturer's

☐ guarantee

☐ required



dar

Submittal for approval of materials

31 OCT 2018

RECEIVED

Date: 31 October 2018

Request no: SAM-MAT-MFF-157 REV 00

Project no. & title: E16104-0400S/T-03 / New capital / Ministerial buildings (P. No. 7A & 8A)

Employer: 	Engineer: 	Contractor: 
1. Material description (one item only on this form) :		
SPRINKLERS VIKING		
CATALOGUE - QUICK REFERENCES - TECHNICAL DATA		
NO Sample Board		
1 CD		
Area of application :	MECHANICAL	
Drawing ref. :	N/A	
Specification Ref. :	15300	B.O.Q. ref. no: N/A
		Standard: N/A
Attach all relevant technical literature marked to identify relevant description, current Test Certificates		
2. Manufacturer / supplier		
Company Name :	VIKING	
Address :	210 N Industrial Park Drive , Hastings MI 49058	
Local agent :	KIRMARY	
	5A ST. KHALED EBN EL WALEED - SHERATOON , CAIRO, EGYPT	
3. Delivery :		
Country of origin :	210 N Industrial Park Drive , Hastings MI 49058	
Availability	☐ Locally Manufactured ☒ Overseas	
Delivery :	Ex-works/ total duration : Estimated time of arrival on site :	
Program :	Date material required on site : Latest date for order :	
We certify that the above submitted items have been reviewed in detail and are correct and in full conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely. Submitted by : <u>Omar Bassiony</u> Signature: <u>[Signature]</u>		
4. Engineer's Representative comments:		☐ Approved ☒ Approved as noted ☐ Revise and resubmit ☐ Rejected ☒ Sample required ☒ Tests required ☒ Additional information required ☐ Manufacturer's guarantee required
Refer to the comments on the attached sheet. <u>Study & Reply</u> <u>1 / 11 / 2018</u> <u>[Signature]</u> Date: <u>31/11/18</u>		

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Submittal for approval of materials

dar 004 4000000000
Sole and Partners

24 OCT 2018

RECEIVED Date: 24-Oct-18

Prj. No. E16104-0400S Time

Project no. & title:

E16104-0400S/T-08/Ministeral Buildings on Plots 19B & 20B

Employer:



Engineer:

dar

Contractor:



1. Material description (one item only on this form) :

Viking Sprinklers

Attachment :-

- Hard Copy
- CD
- No Sample

Area of application : All Building

Drawing ref. : N/A

B.O.Q. ref. no.: N/A

Specification Ref. : 15300

Standards: N/A

Attach all relevant technical literature marked to identify relevant description, current Test Certificates, samples as appropriate.

2. Manufacturer / supplier

Company Name : Kirmary

Address : 5A Khaled Ebn El Waleed st. Sheraton, Cairo, Egypt

Local agent : -

3. Delivery :

Ex-Stock

Country of origin : Egypt

Availability

☒ Locally Manufactured

☐ Overseas

Delivery :

Ex-works/ total duration

Estimated time of arrival on site

Program :

Date material required on site

Latest date for order

I hereby certify that the above submitted items have been reviewed in detail and are correct and in strict conformity with the contract drawings and specifications except as otherwise stated; also that the material sources indicated above have been reviewed in detail and that they will supply the submitted items in conformity with the above and deliver same timely.

Submitted by : ENG./ Ahmed ElMessery

Signature:

4. Engineer's Representative comments:

Refer to The Comments on The attached sheet.

Shady elsayed

30-10-018

31/10/18

Signature:

A. Ras

Date: 31/10/18

E16104-0400S

RECEIVED

19B - 20B

☐ Approved

☒ Approved as noted

☐ Revise and resubmit

☐ Rejected

☒ Sample required

☐ Tests required

☒ Additional information required

☐ Manufacturer's guarantee required

Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.

Chad

1/4/18



الهيئة الهندسية للقوات المسلحة
إدارة الأشغال العسكرية
الطوابق ١٥٠ إنشاءات
كتيبة ٥٥٠

رقم الطلب		التاريخ: ٢٠٢٥ / ٠١ / ١٩		لقسم: FIRE FIGHTING	
MS-B01-FF-0002		إلى مكتب استشاري التنفيذ		من الشركة المنفذة	
البند المطلوب إتمامها		مكتب D M A الاستشارات الهندسية		شركة المقاولون العرب	
رسومات تشغيلية	عنايات	المـوضـوع : تقديم اعتمادات فنية لخامات - LEDE- MECH VIKING		نموذج المنطقة: اسم الشركة : كير ماري	
شهادات الإتماد	كتالوجات ملونة				
طريقة التنفيذ	حساب كميات				
اختبارات معملية	أشياء أخرى				

ملاحظات	كود العمل	مستندات العقد المشار إليها		البيان	م
		المرفقات	المبنى		
	B		B01	اعتماد <u>VALVES FOR FIRE FIGHTING</u> (KIRMARY Brand)	1
	B		B01	اعتماد <u>FIRE SPRINKLERS</u> (VIKING)	2
	B		B01	اعتماد (USA) FIRE CABINETS	3
					4
					5

RECEIVED
ADALA
20 JAN 2025
DMA
DESIGN/ENGINEERING

[illegible]

١- جميع استجابات النوع الأمثل للبند (٣)

CONSULTANT

MEP CONTRACTOR

OWNER

MATERIAL SUBMITTAL

Project Name: Royal Walk Project

Client: الشركة الوطنية لإنشاء وتعمية وإدارة الطرق - وزارة الدفاع

From: Total Air Projects

To: Prof. Dr / Ahmed Aggour
Consulting Engineering Office

Trade: ☐ Civil ☐ Arch. ☐ Mech. ☐ Inform. Tech. ☐ Others ☐
☐ Elec. ☐ Infra. ☐ HVAC ☐ Plu. & Fire Protection

Submittal Ref.:

Document Ref. ROYAL-TA-MS-MECH-079

Rev. 00

Note:

DATA SHEET مرفق

Date: 25/Mar/2025

Catalogues ☐ Samples ☐ Prequalifications ☐ Certificates ☐ Data Sheets ☐

Submittal Information:

Material Description: Sprinklers - VIKING - KIR MARY

Attached: Technical Submittal

Manufacturer: VIKING - KIR MARY

Contractor / Required By: Total Air Projects

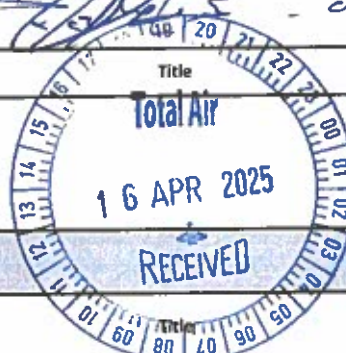
Name/Signature	Title	Date
Eng.: Mohamed Elhishbi	Mechanical Engineer	25/Mar/2025

Consultant Approval:

Approved ☒ Approved With Comments ☐ Approved With Comment and Resubmit ☐ Not Approved ☐

Attached Documents:

لأمانع من الإعتقاد طبياً للمصنفات الفنية المطلوبة وعلى المقاول أن
يقدم عينه من (pendent-upright-sidewall) للعين
والعرض على المعمارى
⑤ تقديم selection للمصنفات طبياً للمصنفات BOQ المعتمد
وتوقيع التوقيع المطلوب (k factor - (visibility link - glass bulb) - deflection dimension



Received By:

Name/Signature

Date

23.2.2022

مشروع أبراج مدينة العلمين الجديدة
قطعة أرض رقم (LD-07)



الشركة الهندسية للصناعات والتشييد
(سيك)

ECG
ENGINEERING CONSULTANTS GROUP S.A.
جماعة المهندسين الاستشاريين
(ECG)



وزارة الإسكان والمرافق والتنمية العمرانية
بلدية المجتمعات العمرانية الجديدة - جهاز مدينة العلمين الجديدة

طلب اعتماد مواد

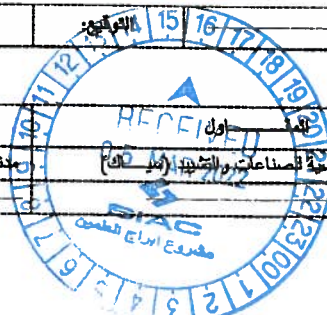
من المقاول العام:		الشركة الهندسية للصناعات والتشييد (سيك)		إلى الإستشاري:		جماعة المهندسين الإستشاريين (ECG)	
رقم الطلب	SIAC/LD-07/MAT/048		الإصدار	Rev.03		التاريخ	٢٠٢٢/٠٢/٢٣
الموضوع	Sprinklers For Fire Fighting System		المرفقات	Catalogs + CD			
نوع الاعمال	إشغالي	معماري	كهرباء	ميكانيكا	مساحة	أخرى	أخرى
م	البيان / الوصف		عدد النسخ	المصنع / بلد الصنع		رمز المواصفات	رمز المقايسة
1	Sprinklers For Fire fighting System: -Reply on comments		1	VIKING (By Kirmary) /USA		SPECS FIRE FIGHTING SYSTEM	

عهد المقاول: المستندات المرفقة تفيها ومراجعتها من حيث تطابقها مع العقد وتعتبر مقبولة للاستخدام في المشروع من قبل المقاول.

المقاول:	قسم الميكانيكا	مدير المكتب الفني	مدير المشروع
Bahar Suni			
ملاحظات الإستشاري:			
Refer to Comments in the attached CTX App			

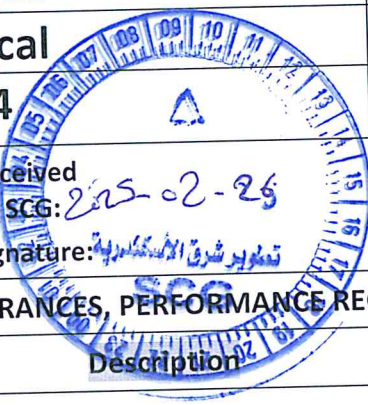
الإستشاري المختص (ECG)	الاعتماد بواسطة:	التوقيع:	التاريخ:
			2/8/22
أ	معتمد	ج	يعاد التقديم مرة أخرى بعد اتمام الملاحظات
ب	معتمد مع ملاحظات - يمكن للمقاول ان يستمر بناء على الملاحظات	د	الطلب مرفوض
اعتماد الإستشاري	الاعتماد بواسطة:	التوقيع:	التاريخ:
اعتماد المالك إن لزم الأمر	الاعتماد بواسطة:	التوقيع:	التاريخ:
استلام المقاول	بواسطة:	التوقيع:	التاريخ:

التوزيع بعد الاعتماد:	المالك	جهاز مدينة العلمين الجديدة
الإستشاري	الشركة الهندسية للصناعات والتشييد (سيك)	معماري
تخطيط	ميكانيكا	تكييف
Q.S		



The Employer 	The Consultant 	The Contractor 
---	---	---

Project: East Alexandria Development Project Operation: SERVICE BUILDING-10 (SRB-10) Area : SRB10 Location: ABO QIR PORT SERVICE BUILDING-10 From: (TOTAL AIR)	Page 1 of 151 To: Shaker Consultancy Group
--	---

Material Submittal (MS)		Action
MS Ref. No.	EAD-SRB10-TA-SCG-MECH-MS-0009	A:Approved
Rev:	0	☒ B:Approved as noted
Date:	25/02/2025	C:Not Approved
Discipline	Mechanical	D:Not Required
Attachment	150- A4	DCR :Document Control
Received by Contractor: Signature:	Date: 25/2/2025 Time: 	Received by SCG: 2025-02-26 Signature: <i>تموير شرق الإسكندرية</i> 

REFERENCE STANDARDS, CERTIFICATES, QUALITY ASSURANCES, PERFORMANCE REQUIREMENTS		
S.N.	BRAND	Description
1	VIKING	FIRE FIGHTING SPRINKLERS
	Supplier	
	Kermary	

Consultant's Remarks: <i>Refer to attached Comments Sheet</i>		
Consultant's Representative: Signature & Date 	Document Control Representative Signature & Date 	Received by Contractor Signature & Date 

**Mansoura 8 - Phase 2
New Administrative Capital**

Submittal Transmittal No. E2523-Siac-Cosmos-Mar-Mech-0054				Rev. 0	
SUBMITTAL TRANSMITTAL FORM TRANSMISSION OF DRAWINGS, DOCUMENTS, MATERIALS, ETC.				30/12/2025	
				SUBMITTED FOR * CODE APPROVAL 1 YOUR INFORMATION 2 3	
CONTRACTOR: SIAC-Industrial Construction & Engineering Co. RE: CONTRACT E2523 - Phase 2 Package No.:				System- Mech E2523 - Phase 2	
WE ARE SENDING HERewith / UNDER SEPARATE COVER, THE DRAWINGS/ DOCUMENTS / SAMPLES LISTED BELOW. (DELETE AS NECESSARY)				ACTION ** APPROVED A APPROVED AS NOTED B NOT APPROVED C FOR INFORMATION D	
QTY	DRWS., SPEC. OR BOQ. REF.	ITEM SEQ NUMBER	DESCRIPTION	+ TYPE	CODE Submittal Action *
1	----	1	FIRE FIGHTING VALVES SPRINKLER PIPES AND FITTINGS CABINETS SWITCHES SUPPORTS Supplier: KIRMARY	MD	1 B
COPIES 1 Soft Copy Only					
Samples					
			FOR CONTRACTOR		
Consultant to enter Action Codes and Remarks, and return to Contractor REMARKS: CONSULTANT'S COMMENTS Approved as noted code (B). 1-Approval all materials from civil defense , 2-UL Listed/ FM Approval as per specs of project and requirement of civil defense. 3- Submit sample for approval. 4-Required visit for inspection of materials. 5-Updated for all certificates. Eng.shehta mohamed					
COPIES TO					
			FOR CONSULTANT		
			DATE:		
TYPE : SD:Shop Drawing CA:Calculation SM:Sample MS:Method Statement GT:Guarantee TF:Temporary Facilities MD OT:Other CT:Certificates TT:Test Results MK:Mock-up					
ROUTING					
FROM: TO: Consultant Contrator Date Date: Date: Date: Signature Signature: Signature: Signature:					
* Code to be entered by Contractor ** Code to be entered by Consultant					



Eng.shehta mohamed

شهادة اعتماد فني

Technical Accreditation Certificate

To Whom It May Concern

إلى من يهمه الأمر

Center of Planning and Architectural Studies (CPAS) "Prof. Dr. Abdelbaki Ibrahim & Partners" Expertise House of Engineering Consultancy witnesses that: Kir Mary company for Engineering Supplies technical file in the field of: supply of fire Fighting systems was studied, for products: valves ,Fire Hose Cabinet for brand :KM , SPP Pumps ,Hangers made in USA , Bristol Pumps ,Tiger Steel ERW pipes made in UAE - LEDE Valves for fighting , Plumbing works and Grooved fitting ,MECH threaded fittings 300 di, viking fire hydrants and sprinklers , zurn Drains , water hammer and hose bib upon the company's request.

يشهد من مركز الدراسات التخطيطية والمعمارية "أ.د. عبد الباقي إبراهيم وشركاه" - بيت خبرة في الهندسة الاستشارية بأن شركة: كير ماري للتوريدات الهندسية، قد درست ملفها الفني في مجال: توريد أنظمة إطفاء الحريق لمنتجات: المحابس ماركة KM - صناديق الحريق ماركة KM - مضخات spp - هناجر صناعة USA - مضخات برينسول ومواسير ماركة TIGER - مضخات STEEL صناعة UAE - (محابس حريق - محابس صرف - وصلات جر وفد) ليدى - وصلات قلاووظ ماركة MECH - DI 300 - (عساكر الحريق ومرشاشات) فايكيغ ، وذلك بناءً على طلب الشركة.

By examining the technical file, documents and certificates submitted by Royal Top Company, we hereby confirm that they comply with the technical and engineering quality requirements. The aforementioned products are, thus, listed in the Materials and Vendors Lists approved by CPAS in its various projects inside/ outside the Arab Republic of Egypt for a period of **one calendar year** starting from the date of issue listed below.

وطبقاً للملف الفني والمستندات والشهادات المقدمة من الشركة فهي مستوفاة للمتطلبات الفنية وتحقق اشتراطات الجودة الهندسية ويندر إخراجها ضمن قائمة الخامات والمواد المعتمدة لدى المركز في مشروعاته المتنوعة داخل/ خارج جمهورية مصر العربية وذلك لمدة سنة ميلادية تبدأ من تاريخ الإصدار المدرج أدناه.

Noteworthy, this certificate is not considered individually for the approval in any project except after referring to the technical approval request for the project.

علماً بأنه لا يعتد بتلك الشهادة منفردة للاعتماد بأي مشروع إلا بعد الرجوع لطلب الاعتماد الفني الخاص بالمشروع.

In witness whereof, we issued this certificate,

وهذه شهادة منا بذلك...

Date of Issue: Tuesday 28/10/2025

صدر في يوم الثلاثاء الموافق ٢٨/١٠/٢٠٢٥

Ven-Cer-2025-010-AG

P.O. Box : 6 Saray - El-Kobba - P.C. : 11712

14 El-Sobky st. - Heliopolis - Cairo - Egypt

Tel : (202) 24190 271 / 843 / 744 - Fax: (202) 22919 341

E-mail : info@cpas-egypt.com - www.cpas-egypt.com

ص.ب: 6 سراي القبة - رمز بريدي : 11712

14 شارع السبكي - خلف نادى هليوبوليس

مصر الجديدة - القاهرة - جمهورية مصر العربية

ت : 24190 271 / 843 / 744 - ف : 341 (202)





اسم المشروع:

جامعة العلمين الدولية للعلوم والتكنولوجيا (جامعة اهلية)

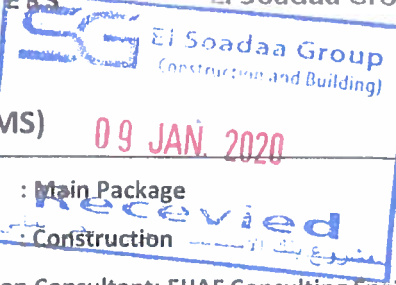
طلب اعتماد مواد Materials Submittal

رقم طلب الاعتماد:	MT-RED-ALM-0422-01	رقم طلب السابق:	MT-RED-ALM-0422
تاريخ الطلب:	2 May, 2020	تاريخ الطلب السابق:	14 April, 2020
من أجل معلومات	☐	من أجل الملاحظات والتعليقات	☐
من أجل الاعتماد	☐	من أجل الاعتماد	☐
مبنى	☐	مضاري	☐
المرفقات:	☐	تكييف HVAC	☐
تقارير	☐	ميكانيكا	☐
أجنحة المواد / المعدات:	☐	مطويات تقنية	☐
مستل	☐	SLD	☐
الاسم / الرقم / الوصف	ملاحظة: يرجى إضافة مرفقات في حالة وجود بلوك أكثر من الفراغ المتاح		
SPRINKLERS	المصدر	المصنع / المورد	مرجع المواصفات
1	VIKING	KIRMARY	المراجع القياسية
ملاحظات المقاول:	استشاور		
ملاحظة: إن طلب الاعتماد المقدم أعلاه مطابق تماماً لمواصفات ومواصفات المقدم، ما لم يتم ذكر خلاف ذلك كما هو موضح أعلاه.			
موافقة على اعتماد المواد المقدمة أعلاه لا يعطي المقبول من مسؤولياته حسب العقد.			
توصيات الاستشاري:			
Side sprinkler should be extended Coverage as per B.O.Q Number of sprinklers per pipe size to be as per NFPA #13. sprinklers installation to be in accordance with NFPA #13			
تم تحليل سعر البند حكاما للثابت، لم يتغير لا من قبل ولا من بعد			
ممثل الاستشاري:	ممثل المالك:	التوقيع: 20/5/20 الاسم: [Signature] الوظيفة: [Signature]	
نتيجة الطلب:	معدل (مقبول)	A B C D	
استلام الاستشاري للطلب	استلام المقاول بالنتيجة	التوقيع: [Signature] التاريخ: [Signature]	



MATERIAL SUBMITTAL (MS)

09 JAN. 2020



Project Name: Arab Investment Bank Headquarter

Project No. : 1185

Employer : Arab Investment Bank

Project Manager : EHAFC Consulting Engineers

Package : Main Package

Phase : Construction

Supervision Consultant: EHAFC Consulting Engineers

Contractor : El Soadaa Group

From : El Soadaa Group

To : EHAFC Consulting Engineers

Attn. : Eng. Mohamed Helmy

Date : 28/12/2019

Submittal Ref.: 1185/SOD/EHF/MS/MEC/019/0033-00

Previous Ref.: N/A

Subject: Fire Sprinkler – (VIKING)

Material/ Equipment For Approval:

Description: Fire Sprinkler – (VIKING)

Specification Reference :

Quantity :

Bill of Quantities Reference :

Manufacturer's Details:

Manufacturer : VIKING

Model Number :

Serial number :

Date of arrival on site :

Country of Origin: GERMANY

Certificate of origin :

Bill of lading :

Storage Location:

Main Contractor :

Attachments: Compliance Sheet & Previous Manufacture's Works & Test Certificates & UL FM & CD & 01 sample Board

Action Code Legend:

(A) Approved

☒ (B) Approved as Noted

(C) Revise and Resubmit

(D) Rejected

Notes :

- Production, supply and /or implementation shall proceed only when action code is A / or B.
- Regarding action code C, resubmittal shall be within the limit set in the contract.
- Review does not relieve the contractor from responsibility of compliance with all requirements of contract documents.
- If rejected please see comments.

Consultant Comments:

Inspection Report:

- Physical damage?
- Details given above correct?
- Conforms with approved submission?
- Accessories / Spare parts included?

Yes/No

Initials Inspector

Engineer

* The contractor must submit the materials from the same manufacturer

* Type factor to be according to industry assets & drawing design requirements

Remarks :

Consultant Manager Remarks:

* warranty certificate to be provided when materials

Actions required from Contractor:

delivered to site for final approval

Attachments:

* bill of lading is requested for delivered parts



Hard Copy



Soft Copy (CD)

Supervision Consultant

Employer's Representative Comments (if required):

Employer Representative

RECEIVED

28 DEC 2019

Project Name:- Al Hammam Agricultural Drainage Water treatment plant.

MOL OC AC HAC
JOINT VENTURE



19 DEC 2021



Contractor:-
MOL-OC-AC-HAC-JV

CONSULTANT:-
Katib&Alami (K&A)

Client:-
GOE (Water Departments)

Material Submittal

From	MOL-OC-AC-HAC-JV			To	Katib&Alami (K&A)	
Transmittal No	NDWTP-MT-CV-ME-KA-ON-0286	Rev	00	Date	18-Dec-21	
Subject	SPRINKLERS-HYDRANTS-GROOVED FITTINGS-VALVES- FIRE HYDRAINT- THREADED FITTINGS- FIRE HOSE CABINETS- SWITCHES-DRAINS- AIR VENT- HANGERS			Attachment	Data sheet , pre approval & cheek	
Manufacturer:	VIKING-LEDE-MECH-ZYFIRE-SYSTEM SENSOR-POTTER-ZURN-VALMATIC-ERICO	Supplier	KIRMARY	Area Of Application	ALL	
Discipline	☐ Civil / Str.	☐ Arch.	☐ Elect	☒ Mech	☐ Other	
Ser	Description				No of Copies	
1	PRE-QUAILIFACTION FOR KIRMARY & DATA SHEETS FOR PRODUCTS				2	

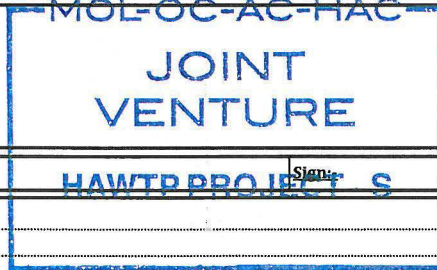
Contractor Commitment:-

the document attached has been reviewed regarding to contract and consider acceptable to be used in the project

Contractor

on shore civil manager
ENG. Nagy Azmy

(Signature of ENG. Nagy Azmy)



PROJECT DIRECTOR
ENG. Waleed Fahmy

(Signature of ENG. Waleed Fahmy)

Consultant Receiving

Name:-

Sign:-

Date:-

Consultant Remarks

** Refer to our Revised Sheet for Comments*

Assigned Consultant Engineer

Name:-

Sign:-

Date

A



Approved

B



Approved with comments, the work can proceed according to notes

C



Re-submit after rectify comments

D



Rejected

Consultant Approval

Name:-

Contractor Receiving

Name:-

New Date: VTP

In ElDaba: Date: Contractor

Distribution before approval

Consultant

Client

20 DEC 2021

Distribution After approval

Client

Contractor

Consultant

Civil

Arch

Elect

HVAC

Mech

Planning

Q.S



Scanned By Camera Scanner

طلب اعتماد العينات بالموقع

عقد رقم : 01

مشروع : تطوير صالة البوليفينج شيراتون الرياضي

العيينة المقدمة : إكسسوارات أجهزة مكافحة الحريق (Fire Fighting) عينة رقم : 24
(Viking Sprinklers)

مراجعة رقم : 00

تاريخ تقديم العينة : 2020 / 09 / 28

إلى : شركة المدن للخدمات الرياضية و الشبابية .

من : شركة انتجرا مصر .

إشارة إلى : مهندس الالكتروميكانيكال لدى الاستشاري .

توصيف العينة المقدمة

Viking Sprinklers

توصيف العينة :

اسم المصنع : شركة فيليبس .

اسم المورد أو الوكيل المحلي : المتحدة للتجارة .

المواصفات : طبقا للمرفقات .

بند رقم : (3) مكافحة الحريق .

شهادة مقارنة بالعينة المرسله :

مرفق العينات : لوحة عينات Data Sheet

تاريخ التوقيع :

توقيع مدير المشروع :

ختم بتاريخ استلام الاستشاري للطلب

ختم بتاريخ تسليم الطلب للمقاول

ختم بتاريخ استلام المقاول

Submit
INTEGRÀ
Date 28 / 09 / 2020

Receive
INTEGRÀ
Date 5 / 10 / 2020

مراجعة مدير المشروعات لدى المكتب الاستشاري

التاريخ : 2020/10/15

التوقيع :

الاسم :

ملاحظات على العينة المرسلة

تم الاعتماد بملاحظات

تم اعتماد عدد 4 انواع فقط كما موضح بالكتالوج المرفق

التاريخ :

التوقيع :

الاسم :

موافقة (A)

موافقة مع وجود ملاحظات (B)

رفض ويتم إعادة الطلب مرة أخرى (C)

مرفوض (D)

توقيع مشرف الموقع المنسوب لدى الاستشاري

نيابة عن اسم المكتب الاستشاري :

MATERIAL SUBMITTAL FORM – (MAR)

TITLE:	Sprinklers	SUBMITTAL NO.:	LMS-21-0014 -MAR-0027
FROM:	Eng. Mohamed Ashraf	DATE:	17-04-2022
ATTN.:	Project manager	REVISION NO:	00
		C/REF.:	

MATERIAL SUBMISSION DESCRIPTION

Discipline: ☐ Civil ☐ Architectural ☐ Electrical ☒ Mechanical ☐ Others

Description of Material

Sprinklers

Manufacturer (Name & Address): **Viking**

Supplier / Local Agent: **Kirmary**

Specification: N/A

BOQ Ref:

Description of Attachments:

- Material List
- Viking Distribution Letter
- Approvals
- Viking Sprinklers Catalogue
- Technical Data & UL/FM Approvals

Description of Samples: **N/A**

Specification Comparison Sheet

Comparison in case of Alternative Submittal

CONTRACTOR SIGNATURE:

Date: 17/04/2022

CONSULTANT COMMENTS:

☐ A-APPROVED ☒ B-APPROVED AS NOTED, WORK MAY PROCEED – INCORPORATE COMMENTS ☐ C-REVISE / RESUBMIT ☐ D-REJECTED

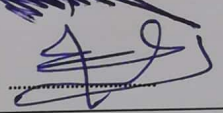
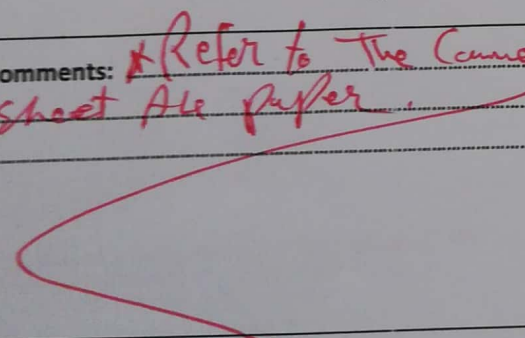
Reviewer	DATE	PROJECT MANAGER	DATE
Consultant Received:		Contractor Received:	
Approved as noted, to coordinate the escalation color with the Arch. consultant.			

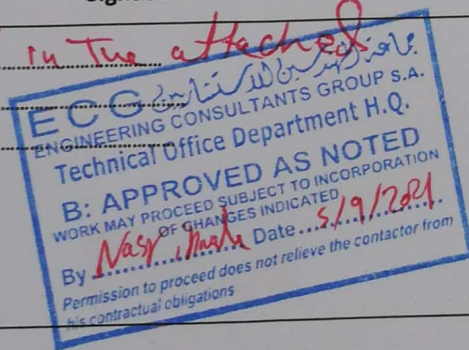


Material Approval Form

2937- ABIC - ECG - MTL - MECH - 003 - 00

Project Name : Syringe Factory
 Project No. : 2937
 Employer : Egyptian Company for Embedded System
 Engineer : ECG Engineering Consultants Group S.A.
 Contractor : ABIC

Description: FIRE FIGHTING SPRINKLERS(PENENAT & UPRIGHT).			
Location/Building:	Sample	☒	According to compliance sheet ☐
	Material delivered to site	☐	New proposal ☒
B.O.Q. Item No. 8&9		Sheet No. 25 of 107	
Specification Reference: Section: 13916 Clause:			
Supplier: KIRMARY CO.			
Manufacture: VIKING			
Attached - Samples ☒ - Catalogues ☒ - Specifications ☒ - Technical Compliance Sheets ☐ - Associated Items/Accessories ☐			
Contractor Technical Officer Manager			
Name: BASEM RAMADAN		Date: 1/09/2021	Signature: 
Engineer ((ECG) Decision	Approved	☐	Name:
	Approved as Noted	☐	Date: / ... / 20
	Revise and Resubmit	☐	Signature:
	Not Approved	☐	
Comments: <i>Refer to the comments in the attached sheet A1c paper</i> 			



ICITY-NC

Material SUBMITTAL

Project : I - City - Plots 27-29-31-33
Employer : Mountain View
Project Management : ACE Project Management
Supervision Consultant: DMA - ACE
Contractor: I-City New Cairo
Plot No.: Plots 27-29-31-33
TO : DMA - ACE

Transmittal/Submittal No.

Rev.

ICNC-CLD-SOLID-M-MAT-0188

0

Date: 18-Oct-21

Submitted For

Approval

1

Information

2

Action (s)

Approved

A

Approved as Noted

B

Revise and Resubmit

C

Rejected

D

WE TRANSMIT HERewith / UNDER SEPARATE COVER, THE DRAWINGS, CALCULATION, ETC. LISTED BELOW.

ITEM NO.	DRW., SPEC. OR BOQ. REF	QTY	DESCRIPTION	TYPE +	SUBMITTAL CODE *	ACTION CODE **
1		2	Fire Fighting Automatic Sprinklers (VIKING) 1- Fire Fighting 2- Pendant Model : K 80 (5.6) 3- Upright Model : K 80 (5.6) Attach:- 1- Data sheet	MD	1	(B)

CONTRACTOR:

RECEIVED BY:

COPIES:

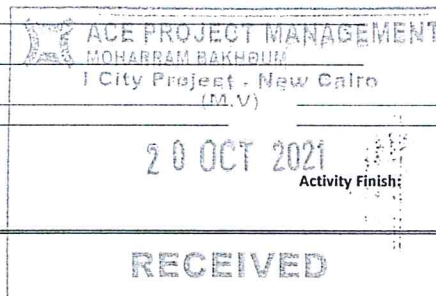
Activity ID /Name at Programme (If Applicable):

Activity Duration:

Activity Start:

Consultant to enter ACTION CODE and REMARKS

Consultant Remarks :



RECEIVED

As per approved (M.S No # 143 REV-01) for automatic sprinkler (VIKING) UL-FM is accepted.

Contractor shall be follow all connects on the attached approved (M.S No # 143 - REV-01).

Will be provide sample for approved.

Consultant Resident Engineer

Initials

Date

ACE PM Remarks :

Initials

Date

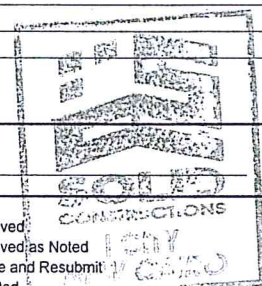
ACE Project Director

DATE:

+ TYPE: SD Shop Drawings
SM Sample
GT Guarantee
MD Manufacturer's Data
CT Certificate

* SUBMITTAL CODE:
1: Submitted for Approval
2: Submitted for Information

** ACTION CODE:
A: Approved
B: Approved as Noted
C: Revise and Resubmit
D: Rejected





MIVIDA PROJECT

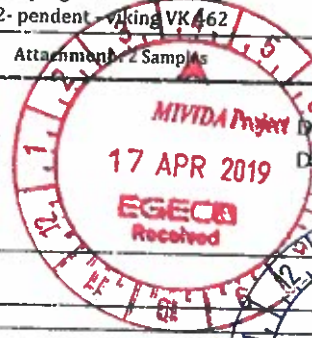


Misr

Contractor Name : Gama Construction				Transmittal-656	
				Rev.0	
TRANSMISSION OF DRAWINGS, DOCUMENTS, SAMPLES, ETC.				Date : 17-04-2019	
Contract		Dedicate To		SUBMITTED FOR	CODE
S-MVD172-PK117-MECH-GS-023		MECH		APPROVAL	1
Mivida - Construction Of Parcel		PK-117		YOUR INFORMATION	2
30A				Others	3
TO CS : Engineering House of Expertise		EGEC		ACTION	
SITE OFFICE				APPROVED	A
WE ARE SENDING HERewith / UNDER SEPARATE COVER, THE DRAWINGS/ DOCUMENTS / SAMPLES LISTED BELOW. (DELETE AS NECESSARY)				APPROVED AS NOTED	B
QTY	DRWS., SPEC. OR BOQ. REF.	ITEM SEQ NUMBER	DESCRIPTION	+TYPE	CODE
1			Sample for fire fighting sprinklers 1-up right - Viking VK300 2- pendent - Viking VK462 Attachment 2 Samples	SM	1 B

CONTRACTOR'S SIGNATURE :
RECEIVED BY CS :

A. Send



DATE : 17-04-2019
DATE :

CC: PROJECT MANAGER

CS to enter Action Codes and Remarks, and return to Contractor

CONSTRUCTION SUPERVISION REMARKS :

Mechanical

1- Samples are approved refer to submittal 314

2- Certificate of origin must be submitted before supplying material to site

3- Side wall sprinklers to be submitted (sample)

4- Architecture approval is a mandatory



Please sign for signed samples

Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

CS SIGNATURE

RECEIVED BY CONTRACTOR

CC: PROJECT MANAGER

TYPE: SD - Shop drawings

SM - Sample

GT - Guarantee

MD - Manufacturer's Data

CT - Certificates

OT - Other

SUBMITTAL CODE

1: Submitted for Approval

2: Submitted for information

3: others



B: APPROVED AS NOTED

C: NOTED FOR RESUBMITTAL

D: NOT APPROVED



MIVIDA Project
1.9.SAMPLE TAG

EGECA

Turner

TRANSMITTAL NO : 656		Rev. (00)	DATE : 17-04-2019
PACKAGE NO : 117			
CONTRACTOR : Gama for Construction			
Sample for fire fighting sprinklers 1-up right - Viking VK300 2- pendent - viking VK 462			
BY CONTRACTOR			
CONTRACTOR'S SIGNATURE <i>A. Said</i>			
☐ A- APPROVED ☒ B- APPROVED AS NOTED ☐ C- NOT APPROVED			
CONSULTANT <i>sherif mouris</i>		PM <i>[Signature]</i>	DATE 17 - 4 - 2019
BY CONSULTANT			



ICITY-NC																							
Material SUBMITTAL																							
Project Employer Project Management Supervision Consultant: Contractor: Plot No.: TO	I-City NC - Plot 19-21 Mountain View ACE Project Management DMA JV ACE Dar Al Mimar Engineering - DME ASASS Construction DMA JV ACE																						
WE TRANSMIT HERewith / UNDER SEPARATE COVER, THE DRAWINGS, CALCULATION, ETC. LISTED BELOW.																							
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width: 60%;">Transmittal/Submittal No.</th> <th style="width: 40%;">Rev.</th> </tr> <tr> <td>ICNC-CLD-ASASS-1921-ME-M-143</td> <td>1</td> </tr> <tr> <td>Date: 3/2/2021</td> <td></td> </tr> <tr> <td>Submitted For</td> <td></td> </tr> <tr> <td>Approval</td> <td>1</td> </tr> <tr> <td>Information</td> <td>2</td> </tr> <tr> <td colspan="2">Action</td> </tr> <tr> <td>Approved</td> <td>A</td> </tr> <tr> <td>Approved as Noted</td> <td>B ✓</td> </tr> <tr> <td>Revise and Resubmit</td> <td>C</td> </tr> <tr> <td>Rejected</td> <td>D</td> </tr> </table>		Transmittal/Submittal No.	Rev.	ICNC-CLD-ASASS-1921-ME-M-143	1	Date: 3/2/2021		Submitted For		Approval	1	Information	2	Action		Approved	A	Approved as Noted	B ✓	Revise and Resubmit	C	Rejected	D
Transmittal/Submittal No.	Rev.																						
ICNC-CLD-ASASS-1921-ME-M-143	1																						
Date: 3/2/2021																							
Submitted For																							
Approval	1																						
Information	2																						
Action																							
Approved	A																						
Approved as Noted	B ✓																						
Revise and Resubmit	C																						
Rejected	D																						
ITEM NO.	DRW., SPEC. OR BOQ. REF.	Company Name	DESCRIPTION	TYPE +	SUBMITTAL CODE *	ACTION CODE **																	
1	Division 7 (Podium)	kirmary	Fire Fighting Automatic Sprinklers- VIKING (VL-FM)	SM	1	(B)																	
Attachments: 1- SAMPLE BOARD																							
M.H ELANANY for Mohamed Gaber DATE: 3/2/2021																							
CONTRACTOR : RECEIVED BY : COPIES : Activity ID /Name at Programme (If Applicable): Activity Duration : Activity Start : Activity Finish :																							
Consultant to enter ACTION CODE and REMARKS																							
Consultant Remarks : * Automatic sprinkler sample (VIKING) USA - (VL-FM) is accepted. * Upright sprinkler 79°C, pendant sprinkler 79°C based on specs project. * R = 5-6 inch Threaded 15 MPa (1/2") with core. * See comments on attachment.																							
Consultant Resident Engineer																							
ACE PM Remarks :																							
ACE Project Director																							
<table style="width:100%;"> <tr> <td style="width: 33%;"> * TYPE: SD Shop Drawings SM Sample GT Guarantee MD Manufacturer's Data CT Certificates OT Others </td> <td style="width: 33%;"> * SUBMITTAL CODE: 1. Submitted for Approval 2. Submitted for Information </td> <td style="width: 33%;"> ** ACTION CODE: A: Approved B: Approved as Noted C: Revise and Resubmit D: Rejected </td> </tr> </table>							* TYPE: SD Shop Drawings SM Sample GT Guarantee MD Manufacturer's Data CT Certificates OT Others	* SUBMITTAL CODE: 1. Submitted for Approval 2. Submitted for Information	** ACTION CODE: A: Approved B: Approved as Noted C: Revise and Resubmit D: Rejected														
* TYPE: SD Shop Drawings SM Sample GT Guarantee MD Manufacturer's Data CT Certificates OT Others	* SUBMITTAL CODE: 1. Submitted for Approval 2. Submitted for Information	** ACTION CODE: A: Approved B: Approved as Noted C: Revise and Resubmit D: Rejected																					
Architecture	Structure	Electrical	Mechanical	Surveying																			

طلب اعتماد مواد

MS/R5/Z03/MECH/0247 Rev.01		رقم الطلب: Rev.01	المالك : هيئة المجتمعات العمرانية الإشرافي : جماعة المهندسين الإشرافيين ECG	مشروع الحي السكني R05 – (Zone) 3 بالعاصمة الإدارية الجديدة
صفحة 1/1	التاريخ : 2021 / 01 / 27			المقاول : ASGC Construction

1. قسم التقديم:

☐ آشنایی ☐ معماری ☐ کهرپاء ☐ صححي ☐ تکليف ☒ حريق ☐ اخرى

2. صفة التقديم:

1	عينات	2	خامات	3	كناالوج	4	اآري
---	-------	---	-------	---	---------	---	------

3. التقديم بالغرض

☐ العظم ☒ للاعتماد ☐ اخرى

4. الموقع:

المبنى : ALL Clusters : التجمع : المنطقة : ZONE3

5. تفاصيل التقديم:

م	البيان/ الوصف	المُصنّع / المورد	ارقام مراجع المستندات	عدد النسخ	مراجع العقد			كود الإعتماد
					اللوح	المقايسة	مواصفات	
1	VIKING SPRINKLERS FOR FIRE FIGHTING WORKS	VIKING / KIRMARY				13916	13916	B

ملاحظات المقاول : مرفق عدد (1) عينه (Concealed Sprinkler)

[illegible]

مهندس المكتب الفني
الاسم: محمد بن عبد الله
التوقيع: [Signature]

مدير المكتب الفني
الاسم: اسعد
التوقيع: [Signature]

ASGC Construction
ASGC

ملاحظات الاستشاري:

☐	(A) Name	ملحوظات الإستشاري:
☐	(B) Function	لو مانع من أحسن
☐	(C) Record	"Viking"
☐	(D) Mرفوض ولا يعاد تقديمه	Concatted type.

التاريخ: ٩ / ٩ / ٩٩

03 FEB 2021

استلام المقال بعد المراجعة

الأنتم :

التوقيع :



الاسم:

استلام الاستشاري

الاسم :

التوقيع :

مشروع الحي الآتي

ORASCOM
CONSTRUCTION

المقاول: اوراسكوم



ENGINEERING CONSULTANTS GROUP S.A.

الإستشاري: جماعة المهندسين الإستشاريين

المالك: وزارة الإسكان والمرافق والمجتمعات العمرانية

Alamein
ENGINEERING CONSULTANTS GROUP S.A.

2604

(Submittal)

طلب اعتماد مستندات

إلى الإستشاري :-	جماعة المهندسين الإستشاريين ECG	من المقاول العام :	اوراسكوم
------------------	------------------------------------	--------------------	----------

رقم الطلب	LQ-OC-ECG-MSL-ME-0037	الإصدار	00	التاريخ	22-Apr-21
الموضوع	Fire Water Sprinklers (BRAND: Viking) ((KIRMARY CO.))				
المرفقات	1 CD + Sample Board				
المنطقة	Fire	إنشائي	معماري	كهرباء	ميكانيكا
نوع الاعمال	Fire	إنشائي	معماري	كهرباء	ميكانيكا
نوع الاعمال	Fire	إنشائي	معماري	كهرباء	ميكانيكا

م	البيان / الوصف	عدد النسخ
1	*(Kirmary Co.) Fire Water Sprinklers (BRAND: Viking) *Catalogue *Technical Features.*Previous Projects *Certificates *Compliance Sheet *Sample are upon material supply	2

تعهد المقاول: المستندات المرفقة تنسيقها ومراجعتها من حيث تطابقها مع العقد وتعتبر مقبولة للاستخدام في المشروع من قبل المقاول

المقاول	مهندس اول كميات
مدير المكتب الفني	24/4/21
استلام الإستشاري	بواسطة: التوقيع: بتاريخ:

ملاحظات الإستشاري	* Refer to comments at attached A.A.
-------------------	---

الإستشاري المختص	بواسطة: التوقيع: بتاريخ:
معمد	ج
معمد مع ملاحظات	د

اعتماد الإستشاري	م/م
استلام المقاول	بواسطة: التاريخ: 20/4/21
TYPE : SD:Shop Drawing CA:Calculation SM:Sample MS:Method Statement GT:Guarantee TF:Temporary Facilities MD:Manufacturer's Data OT:Other CT:Certificates	

التوزيع قبل الاعتماد :

المالك :	الإستشاري :
----------	-------------

التوزيع بعد الاعتماد :

المالك	المقاول	الإستشاري
مدني	معماري	كهرباء
ميكانيكا	تخطيط	Q.S



شركة البحر الاحمر للمقاولات

ECG
ENGINEERING CONSULTANTS GROUP S.A.
الإستشارى: جماعة المهندسين الإستشاريين



(Submittal - MAT)

طلب اعتماد مواد

إلى الإستشارى :-	جماعة المهندسين الإستشاريين ECG	من المقاول العام :	شركة البحر الاحمر RSC
------------------	------------------------------------	--------------------	--------------------------

رقم الطلب	RSC-ECG-MAT-MECH-050	الإصدار	REV : 00	التاريخ	1-Mar-2021
الموضوع	FIRE SPRINKLER				
نوع الاعمال	☐ إنشائى	☐ معمارى	☐ كهرباء	☒ ميكانيكا	☐ مساحة

م	البيان / الوصف	عدد النسخ	المصنع / بلد الصنع	رمز المواصفات	رمز المقايضة
1	FIRE SPRINKLER	3	VIKING KIRMARY		

تعهد المقاول: المستندات المرفقة تنسيقها ومراجعتها من حيث تطابقها مع العقد وتعتبر مقبولة للاستخدام فى المشروع من قبل المقاول

المقاول	مهندس المكتب الفنى	مدير المكتب الفنى
استلام الإستشارى	بواسطة:	التوقيع: 1-3-2021
بالتاريخ: 12/3		

ملاحظات الإستشارى	* VIKING sprinkler approved . * storing and installation as per manufacturer recommendation .	
-------------------	--	--

الإستشارى المختص	الإعتماد بواسطة:	التوقيع: 25/3	بالتاريخ:
☐ A	معتد	☐ C	يعاد التقديم مرة أخرى بعد اتمام الملاحظات
☒ B	معتد مع ملاحظات - يمكن للمقاول ان يستمر ببناء على الملاحظات	☐ D	الطلب مرفوض

اعتماد الإستشارى	م/.....	بالتاريخ: 25/3/2021
استلام المقاول	الإستلام بواسطة :	بالتاريخ: 25/3/2021

التوزيع قبل الاعتماد :

المالك :	الإستشارى :
----------	-------------

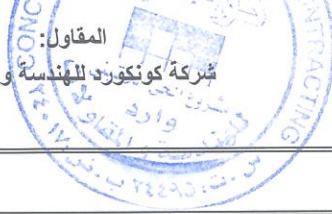
التوزيع بعد الاعتماد :

المالك	المقاول	الإستشارى
	مدنى	معمارى
	كهرباء	تكييف
	ميكانيكا	تخطيط
	Q.S	



CONCORD
FOR ENGINEERING & CONTRACTING

المقاول:
شركة كونكورد للهندسة والمقاولات



مشروع
الحي اللاتيني بمدينة العلمين الجديدة

EGCG
ENGINEERING CONSULTANTS GROUP S.A.

الإستشارى:
جماعة المهندسين الإستشاريين



(Submittal - MAT)
طلب اعتماد مواد

شركة كونكورد للهندسة والمقاولات CONCORD	من المقاول العام :	جماعة المهندسين الإستشاريين ECG	إلى الإستشارى :-
--	--------------------	------------------------------------	------------------

25-Feb-21	التاريخ	0	الإصدار	CON-ECG-MAT-MECH-025	رقم الطلب
(3)CATALOGUE+CD	المرفقات	FIRE FIGHTING SPRINKLERS			الموضوع
☐ أخرى	☐ مساحة	☒ ميكانيكا	☐ كهرباء	☐ معمارى	☐ إنشائى

م	البيان / الوصف	عدد النسخ	المصنع / بلد الصنع	رمز المواصفات	رمز المقايضة
1	FILE catalogue AND compliance sheet	3	VIKING		

المقاول					
مدير الجودة			مدير الكهروميكانيك		

استلام الإستشارى	بواسطة:	التوقيع:	بتاريخ:
------------------	---------	----------	---------

ملاحظات الإستشارى	
* viking sprinklers approved as per vendor List and project specs.	
* For installation and storing follow specs and manufacturer recommendation.	

الإستشارى المختص	الإعتماد بواسطة:	التوقيع:	بتاريخ:
------------------	------------------	----------	---------

أ	معتمد	ج	يعاد التقديم مرة أخرى بعد اتمام الملاحظات
ب	معتمد مع ملاحظات - يمكن للمقاول ان يستمر بناء على الملاحظات	د	الطلب مرفوض

اعتماد الإستشارى	م/.....	بتاريخ: 2021/02/25
استلام المقاول	الإستلام بواسطة:	بتاريخ: 2021/02/25

التوزيع قبل الاعتماد :	المالك :
الإستشارى :	

التوزيع بعد الاعتماد :	المالك :
المقاول	الإستشارى
مدنى	معمارى
كهرباء	تخطيط
ميكانيكا	Q.S

**SIAC****SHAKER**

CONSULTANCY GROUP

IDG

INTERNATIONAL DESIGN GROUP

Alamein

Training Institute for the Construction Industry

جامعة العلمين الدولية للعلوم والتكنولوجيا (جامعة اهلية)

اسم المشروع:

طلب اعتماد مواد Materials Submittal

رقم الطلب السابق:

SIAC/UNI/MATR/125

رقم طلب الاعتماد:

طلب جديد ☒

تاريخ الطلب السابق:

7/2/2019

تاريخ الطلب:

طلب معاد تقديمه ☐من أجل الاعتماد ☐من أجل الملاحظات والتعليقات ☐من أجل معلومات ☐

سبب تقدم طلب الاعتماد

الفرع:

اخرى ☐كهرباء ☐ميكانيكا ☒إنشائي ☐معماري ☐مدني ☐

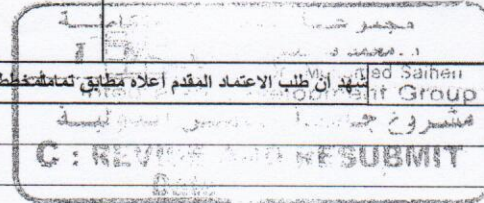
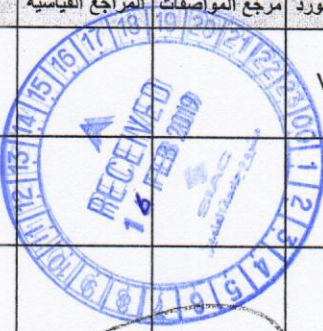
المرفقات:

حسابات ☐معلومات تقنية ☐عينات ☒شهادات ☐مخططات ☐كتالوجات ☐

ملاحظة يرجى إضافة مرفقات في حالة وجود بنود أكثر من الفراغ المتاح.

جدول المواد / المعدات:

مسلسل	الاسم / الرقم / الوصف	نوع البند	المصدر	المصنع / المورد	مرجع المواصفات	المراجع القياسية	حالة الاعتماد
1	Fire Fighting Sprinklers	Mech	KIRMARY	Viking			C
2							
3							



ملاحظات المقاول: ملاحظة يرجى إضافة مرفقات في حالة وجود بنود أكثر من الفراغ المتاح.

استثناء:

اسم المهندس:

التوقيع:

7/2/2019

التاريخ:

توصيات الاستشاري: موافقة على اعتماد المواد المقدمة أعلاه لا يعفي المقاول من مسؤولياته حسب العقد.

توصيات الاستشاري:

* Sample is missing.

* Selection of sprinklers Type as per project should be provided.

* All certifications should be provided.

5014/02

تمثل المالك:	تمثل الاستشاري:
الاسم:	الاسم:
الوظيفة:	الوظيفة:
التوقيع:	التوقيع:
التاريخ:	التاريخ:

مرفوض ويجب إعادة التقديم ☒معتمد ☐بدون اجراء ☐معتمد مع ملاحظات ☐غير ضرورية ☐

نتيجة الطلب:

استلام المقاول بالنتيجة

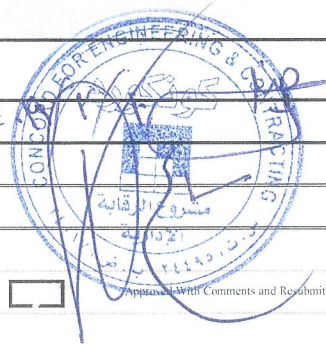
التوقيع:
التاريخ:

استلام الاستشاري للطلب

التوقيع:
التاريخ:



REQUEST FOR APROVAL (RFA)			
NO.: ACA-RFA-775 (Rev. 00)			
PROJECT NAME: Construction of new Building for Administrative Control Authority			PROJECT NO.: 2399
CLIENT: Administrative Control Authority			
TO: Engineering Consultants Group		FROM: Concord For Engineering & Contracting	
ATTN: Eng. Ahmed Hanafy			
TREAD:	Civil o Elec.	o Arch o Infra	o Mech. o Inform. Tech.
			o HVAC Plu. & Fire Protection o Others
Doc. Refs.:		Location	General Project
Bill Ref. No.:		Bldg.:	All Buildings
Drwg. No.:		Level:	
Spec. No.:		Axis:	
		Site Works:	Fire Fighting Works
SUBJECT:- Fire Fighting Sprinklers (Viking - KirMary)			
REQUEST DESCRIPTION:			
Kindly Find Attached:-			
Manufacturer :- Viking			
Country :- USA			
Supplier :- KirMary			
For your review and approval.			
ATTACHMENT DOCUMENTS:-			
1- One Hard Copy			
2- One Soft Copy			
3- Sample Board			
REQUESTED BY			
NAME/SIGNATURE	TITLE	DATE	
Eng. Usama Nada	MEP Manager	10-Mar-19	
Eng. Sameh Mahfouz	Project Manager		



RESPONSE:			
☐	Approved	☒	Approved With Comments
☐	Not Approved		
QUICK RESPONSE Upright Sprinkler Model: VK100 is approved as per attached Sample. Pendent Sprinkler Model: VK-102 is approved as per attached Sample. Horizontal sidewall Sprinkler Model: VK-605 is approved as per attached Sample.			
ATTACHED DOCUMENTS:			
Concealed Pendent Sprinkler Model: VK-492 is approved. → Cover Plate Color should be Coordinated With Arch.			
RESPONDED BY			
NAME/SIGNATURE	TITLE	DATE	
Received By			
NAME/SIGNATURE	TITLE	DATE	
Received By			
NAME/SIGNATURE	TITLE	DATE	



A. Tergoman
11-3-2019

P.D.C

11 March 2019

K I R M A R Y

for engineering supplies Grooved fitting LEDE

KirMary
Engineering Supplies
Importing & Exporting
Trading Agencies



KIRMARY

كبرماري
للتوريدات الهندسية
استيراد وتصدير
والتوكيلات التجارية

Sprinkler section as per spec.	Sprinkler Brand name	Type of Hazard	Temperature Rating	Sprinkler (k) factor	Sprinkler type of Response	Sprinkler Model no.
SCG-2423-MINSTRS-	VIKING	Ordinary Hazard [Recessed Pendant quick response sprinkler]	68 ° C	K=5.6	Quick Response	VK302 [Accepted subject to sample approval]
SPC-F-X-001-SD-01	VIKING	Light, Ordinary, and Extra Hazard [Upright standard response sprinkler]	68 ° C	K=5.6	Std Response	VK100 [Accepted subject to sample approval]
Section 15300 page 4 of 9	VIKING	Light Hazard [Extended coverage standard response side wall sprinkler]	68 ° C	K=5.6	Std Response	VK102 [Not accepted, VK-605 to be submitted instead]

٢٢٦٧٥٣٣٩-٢٢٦٦٤٩٢/٠٣ : تليفون القاهرة - شارع خالد بن الوليد شيراتون -
موبايل: ٠١٠١٩٥٢٩٤١ - ٠١٢١١١٧٨٢٥ - ٠١٢٢٧٣٨٩٥٢٨ - ٠١٢٢٧٨٠٥٢٤٨

E-mail: Kir.mary@yahoo.com website: www.kirmary.com



TECHNICAL DATA

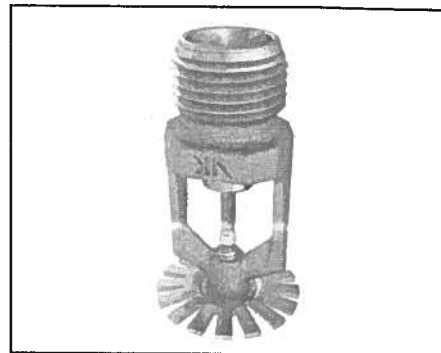
**MICROFAST® QUICK
RESPONSE PENDENT
SPRINKLER VK302 (K5.6)**

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: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Microfast® Quick Response Pendent Sprinkler VK302 is a small thermo-sensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: **FM Global approves ENT finish as corrosion resistant.** FM Global has no approval classification for Polyester coatings as corrosion resistant.)



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class Series 2000



VdS Approved: Certificates G414009 and G414010



LPCB Approved



CE Certified: Standard EN 12259-1:1999, A3:2006 Certificate of Constancy of Performance 0832-CPR-S0021



CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)

Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Rated to 175 psi (12 bar) water working pressure

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" NPT, 15 mm BSP

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

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

Overall Length: 2-1/4" (58 mm)

*cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Phosphor Bronze UNS-C51000 or Copper UNS-C19500

Bulb: Glass, nominal 3 mm diameter

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

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT Coated Sprinklers: Belleville Spring-Exposed, Screw and Pipcap - ENT plated.

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

Order Quick Response Pendent Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, and ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 286 °F (141 °C) = G

For example, sprinkler VK302 with a Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12979AB

Available Finishes And Temperature Ratings: Refer to Table 1.

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

	TECHNICAL DATA	MICROFAST® QUICK RESPONSE PENDENT SPRINKLER VK302 (K5.6)
---	-----------------------	---

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: www.vikinggroupinc.com

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475M/B (available since 2017).
- B. Wrench for Recessed Pendent Sprinklers: Part No. 13655W/B** (available since 2006)
- C. Optional Protective Sprinkler Cap Remover/Escutcheon Installer Tool*** Part No. 15915 (available since 2010)

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

***Allows use from the floor by attaching a length of 1" diameter CPVC tubing to the tool. Ideal for sprinkler cabinets. Refer to Bulletin F_051808.

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

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 pip cap and sealing spring assembly. 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 Microfast® Quick Response Pendent Sprinkler VK302 is 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.

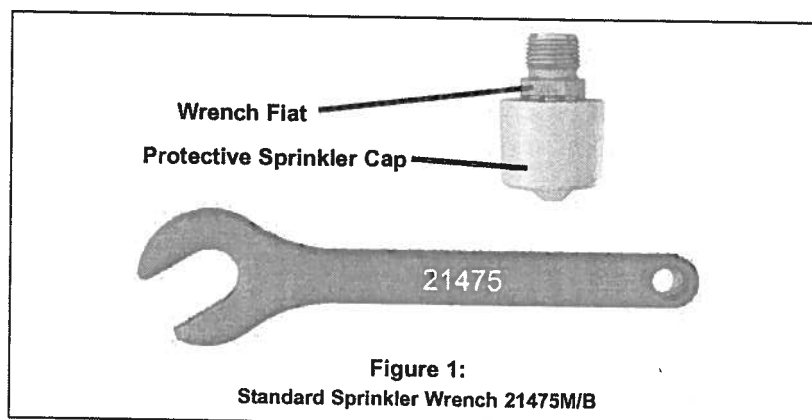


Figure 1:
Standard Sprinkler Wrench 21475M/B



TECHNICAL DATA

**MICROFAST® QUICK
RESPONSE PENDENT
SPRINKLER VK302 (K5.6)**

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: www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
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

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

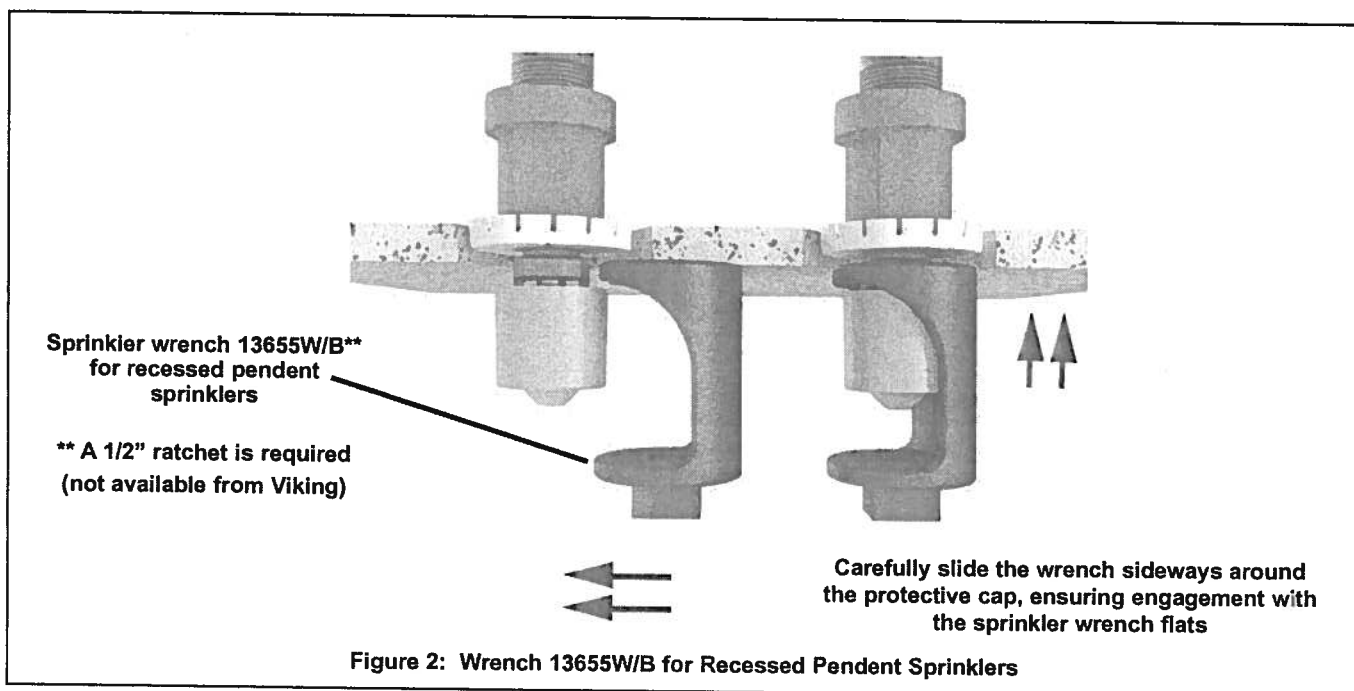
Corrosion-Resistant Coatings³: White Polyester, and Black Polyester. ENT in all temperature ratings except 135 °F (57 °C)

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.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.





TECHNICAL DATA

**MICROMATIC® STANDARD
RESPONSE UPRIGHT
SPRINKLER VK100 (K5.6)**

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: www.vikinggroupinc.com

1. DESCRIPTION

The Viking Micromatic® Standard Response Upright VK100 Sprinkler is a small, thermosensitive, glass-bulb spray sprinkler available in several different finishes and temperature ratings to meet design requirements. The special Polyester and Electroless Nickel PTFE (ENT) coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are listed/approved as corrosion resistant as indicated in the Approval Charts. (Note: FM Global approves the ENT coating as corrosion resistant. FM Global has no approval classification for Polyester coatings as corrosion resistant.)

Viking standard response sprinklers may be ordered and/or used as open sprinklers (glass bulb and pip cap assembly removed) on deluge systems. Refer to Ordering Instructions.



2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Classes 2001, 2002, 2015, 2017, 2043

NOTE: Other International approval certificates are available upon request.
 Refer to Approval Charts and Design Criteria for listing and approval requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: 175 psi (12 bar) wwp

Factory tested hydrostatically to 500 psi (34.5 bar)

Thread size: 1/2" NPT, 15 mm BSP

Nominal K-Factor: 5.6 U.S. (80.6 metric)

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

Overall Length: 2-3/8" (60 mm)

† cULus Listing, FM Approval, and NFPA 13 installs require a minimum of 7 psi (0.5 bar). The minimum operating pressure for LPCB and CE Approvals ONLY is 5 psi (0.35 bar).

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

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Brass UNS-C23000 or Copper UNS-C19500

Bulb: Glass, nominal 5 mm diameter

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

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400

For Polyester Coated Sprinklers: Belleville Spring-Exposed

For ENT coated Sprinklers: Belleville Spring - Exposed, Screw and Pipcap - ENT plated.

†† Not for FM Approval.

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

Order Micromatic® Standard Response Upright VK100 by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-W, Black Polyester = M-B, Wax Coated = C, Wax Over Polyester = V-W, ENT = JN

Temperature Suffix: 135 °F (57 °C) = A, 155 °F (68 °C) = B, 175 °F (79 °C) = D, 200 °F (93 °C) = E, 212 °F (100 °C) = M, 235 °F (141 °C) = G, 360 °F (182 °C) = H, 500 °F (260 °C) = L.

For example, sprinkler VK100 with a 1/2" thread, Brass finish and a 155 °F (68 °C) temperature rating = Part No. 12986AB

Available Finishes And Temperature Ratings: Refer to Table 1.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE UPRIGHT SPRINKLER VK100 (K5.6)

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: www.vikinggroupinc.com

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

- A. Standard Wrench: Part No. 21475M/B (available since 2017)
- B. Standard Wrench for Wax Coated Sprinklers: Part No. 10896W/B
- C. Socket Wrench for Wax Coated Sprinklers: Part No. 13577W/B* (available since 2006)

*A 1/2" ratchet is required (not available from Viking).

Sprinkler Cabinets:

- A. Six-head capacity: Part No. 01724A (available since 1971)
- B. Twelve-head capacity: Part No. 01725A (available since 1971)

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 pip cap and sealing spring assembly. 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

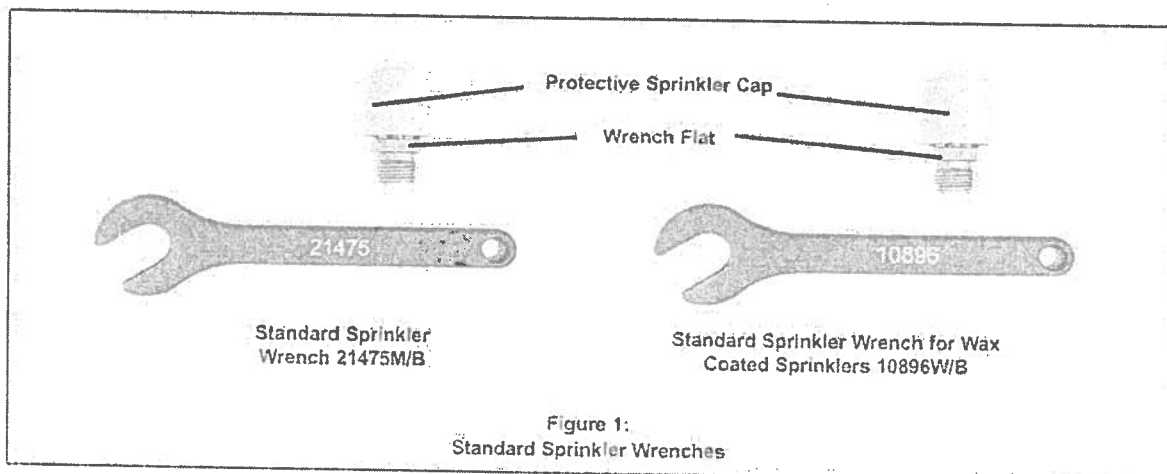
Refer to NFPA 25 for Inspection, Testing and Maintenance requirements.

7. AVAILABILITY

The Viking Micromatic® Standard Response Upright Sprinkler VK100 is 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.





TECHNICAL DATA

**MICROMATIC® STANDARD
RESPONSE UPRIGHT
SPRINKLER VK100 (K5.6)**

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: www.vikinggroupinc.com

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²	Bulb Color
Ordinary	135 °F (57 °C)	100 °F (38 °C)	Orange
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
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve
Ultra High ³	500 °F (260 °C)	465 °F (240 °C)	Black

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and ENT

Corrosion-Resistant Coatings⁴: White Polyester, Black Polyester, and Black PTFE in all temperature ratings. ENT in all temperature ratings except 135 °F (57 °C). Wax-Coated Brass and Wax over Polyester⁵ for sprinklers with the following temperature ratings:
 155 °F (68 °C) Lt. Brown Wax 175 °F (79 °C) Brown Wax 200 °F (93 °C) Brown Wax 286 °F (141 °C) Dk. Brown Wax⁵

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.

³ Sprinklers of Ultra-High temperature rating are intended for use inside ovens, dryers, or similar enclosures with normal operating temperatures above 300 °F (149 °C). Where the ambient temperature around the Ultra-High temperature rated sprinkler is significantly reduced below 300 °F (149 °C), response time may be severely retarded.

⁴ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Charts. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and ENT coatings. For ENT coated automatic sprinklers, the waterway is coated.

⁵ Wax melting point is 170 °F (76 °C) for 286 °F (141 °C) temperature rated sprinklers.



Mimar Egypt Engineering Consultants
P.O. BOX 11835, New Cairo, Egypt Email: mimar@mimar-group.com
TEL: +202 26 85 095 FAX: +202 26 77 455 www.mimar-group.com



HYDE PARK
NEW CAIRO



HASSAN ALLAM
CONSTRUCTION

Business PARK PROJECT- NEW CAIRO

SUBMITTAL TRANSMITTAL

Submittal Transmittal No.	Rev
BDPI-CP71-MTR-MECH-0013	0

Date: 13-May-19

TRANSMISSION OF DRAWINGS, DOCUMENTS, MATERIALS, ETC.

Contract Name : Business District Phase 1 Package (A&B) Contract No: CP71

From HASSAN ALLAM CONSTRUCTION

Cluster No: Business District

To: MIMAR EGYPT

SUBMITTED FOR	COD
APPROVAL	1
YOUR INFORMATION	2
OTHERS	3
ACTION	
APPROVED	A
APPROVED AS NOTED	B
REVISE AND RESUBMIT	C
REJECTED	D
FOR INFORMATION	E

WE ARE SENDING HERewith / UNDER SEPARATE COVER, THE DRAWINGS/
DOCUMENTS / SAMPLES LISTED BELOW. (DELETE AS NECESSARY)

QTY	ITEM REF	REV	DOCUMENT TYPE	COPIES	DESCRIPTION	+ TYPE	CODE	Action
							Submittal 1	
1	BDPI-CP71-MTR-MECH-0013	0	Gen	1	Upright, Pendent Concealed & Sidewall Sprinklers (Viking)	MD	1	(B)
					Attachments : Data Sheet (74) Pages A4 & CD			
					FOR CONTRACTOR	DATE:		

Engineer to enter Action Codes and Remarks, and return to Contractor

REMARKS:

ENGINEER'S COMMENTS

* See comments in attached A4 page (1/1)

COPIES TO	
	FOR ENGINEER Consultant
	DATE: 28/5/2019

EMPLOYER'S COMMENTS (IF REQUIRED)

COPIES TO	
	FOR EMPLOYER
	DATE:

Corrections or comments made relative to submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions selecting fabrication processes and techniques of construction; coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

TYPE : SD:Shop Drawing CA:Calculation SM:Sample MS:Method Statement GT:Guarantee TF:Temporary Facilities

OT:Other CT:Certificates TT:Test Results MK:Mock-up MD:Manufacturer's Data

H.A Construction
Hyde Park Project
Received

MIMAR comments on Document Submittal ref no. BDPI-CP71-MTR-MECH-0013
rev0

Subject: upright, Pendent concealed & Sidewall Sprinklers (Viking)

- 1- Submit sample for approval.
- 2- Exact location and quantities shall be as per final approved shop drawing.

Approved Models:

PRODUCT-01	UPRIGHT SPRINKLER
MANUFACTURE	VIKING – USA (UL/FM APPROVED)
LOCATION	AS PER APPROVED SHOP DRAWINGS
MODEL	VK 100
TECHNICAL DATA	- TYPE: UPRIGHT - RESPONSE: STANDERED RESPONSE - K-FACTOR: 5.6 US - MAX. WORKING PRESSURE: (175 PSI) - TEMPRATURE: 68C
SIZE	1/2" NPT
PRODUCT-02	PENDENT SPRINKLER
MANUFACTURE	VIKING – USA (UL/FM APPROVED)
LOCATION	AS PER APPROVED SHOP DRAWINGS
MODEL	VK 492
TECHNICAL DATA	- TYPE: PENDENT - RESPONSE: STANDERED RESPONSE - K-FACTOR: 5.6 US - MAX. WORKING PRESSURE: (175 PSI) - TEMPRATURE: 68C
SIZE	1/2" NPT

PRODUCT-03	SIDE WALL SPRINKLER
MANUFACTURE	VIKING – USA (UL/FM APPROVED)
LOCATION	AS PER APPROVED SHOP DRAWINGS
MODEL	VK 104
TECHNICAL DATA	- TYPE: SIDE WALL - RESPONSE: STANDERED COVERAGE - K-FACTOR: 5.6 US - MAX. WORKING PRESSURE: (175 PSI) - TEMPRATURE: 68C
SIZE	1/2" NPT
PRODUCT-04	SIDE WALL SPRINKLER
MANUFACTURE	VIKING – USA (UL/FM APPROVED)
LOCATION	AS PER APPROVED SHOP DRAWINGS
MODEL	VK 605
TECHNICAL DATA	- TYPE: SIDE WALL - RESPONSE: EXTENDED COVERAGE - K-FACTOR: 5.6 US - MAX. WORKING PRESSURE: (175 PSI) - TEMPRATURE: 68C
SIZE	1/2" NPT

mimar
EGYPT
ENGINEERING CONSULTANTS

مشروع المبني الاداري لمجموعة سياك القابضة

أسم المشروع : مشروع المبني الاداري لمجموعة سياك القابضة
رقم المشروع :

طلب اعتماد مواد	
الرقم : SIAC/MAR/MECH /095	اصدار رقم (00)
مرجع الرسومات : SIAC-MB-SD-MECH	مرجع المواصفات / قائمة الكميات : 211313
الموضوع : SPRINKLER	

نوع التقديم :	
☐ عينات	☒ مستندات

التوصيف :	
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☐ أنشائي	☐ معمارى	☐ كهرباء	☒ حريق	☐ صحى	☐ تكييف	☐ أخرى
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م	أسم المادة	توصيف المادة	المصنع	بلد الصنع
1	SPRINKLER	VK 104	VIKING	USA
2	SPRINKLER	VK 1001	VIKING	USA
3	SPRINKLER	VK 4621	VIKING	USA

مدير قسم الميكانيكا : م / محمد عبد المحسن حامد	التوقيع م /	بتاريخ : 19/08/2024
--	-------------	---------------------

أستلام الاستشاري : Email.. Tue 20/08/24 12:55.....	بتاريخ : / / 2024
--	-------------------

ملاحظات	
1-Cournty origin from USA to be submitted. 2-Test certificate from USA for UL FM -listed to be submitted. 4-Selection on catalogs is required.	
اعتماد الإستشارى : الأسم : Eng / A. Abd El Fattah..... التوقيع : التاريخ : 2024 / 08 / 24	

اعتماد الإستشارى :	
--------------------	--

معتمد.	A
معتمد مع ملاحظات ويمكن للعمل أن يستمر بناء على الملاحظات.	B
مرفوض مع ملاحظات ويعاد التقدم للاعتماد.	C
الطلب مرفوض ولايعاد للتقديم مرة أخرى.	D

أستلام المقاول : الأسم : التوقيع : التاريخ : 20 / /



VIKING SPRINKLERS

Catalogue

Standard Sprinklers & Spray Nozzles

Quick Reference Guide | EMEA





Introduction to Standard Sprinklers & Spray Nozzles

Viking is renowned for the development, manufacturing, sales and distribution of excellent fire protection technologies and has been a dependable partner in fire protection for many decades.

The broad product portfolio encompasses innovative and proven system components for water, foam and gas extinguishing systems as well as fire detection systems and is a reflection of Viking's unwavering focus on providing customers with the finest products and highest level of support.

Through Viking's dedicated and knowledgeable customer service, installers of fixed fire protection systems have access to those quality products and can place their trust in the professional and dedicated support services provided by Viking employees. From the smallest project to the largest endeavour, Viking is their single-point partner with the goal to provide the right material whenever and wherever needed.

Viking is passionate about fire protection and committed to the growth of the fixed fire protection industry. As Viking is completely focused and dedicated to this market, customers can have confidence that Viking has the expertise that they need to be successful. They can count on Viking's resources and technical expertise to help them whenever they have a challenge to overcome. And they can be sure to find the right product or solution for their project with the necessary approval or accreditation.

This quick reference guide provides an overview of Viking's comprehensive range of standard sprinklers and spray nozzles. Besides access to those products, customers benefit from a market leading technical support team across Europe and the Middle East, which also holds regular technical training courses on water, foam, gas and detection systems, products and maintenance.

Learn more at www.viking-emea.com.

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How to order products stating a base part number:

How to order glass bulb sprinklers							
Base part number	+	Finish code		+	Temperature (°C) code		Bulb colour
XXXXX	+	Brass	A	+	57	A	Orange
		Chrome	F		68	B	Red
		White	M-/W		79	D	Yellow
		Black	M-/B		93	E	Green
		Wax	C		141	G	Blue
		Electroless nickel PTFE (ENT)	JN		182	H	Mauve
		RAL			260	L	Black
				OPEN	Z	n/a	
Examples:	12987AE = 12987 + Brass (A) + 93°C (E) 12986AD = 12986 + Brass (A) + 79°C (D)						

How to order fusible link sprinklers							
Base part number	+	Finish code		+	Temperature (°C) code		Frame colour code
XXXXX	+	Brass	A	+	74	C	None
		Chrome	F		96	E	White
		White	M-/W		104	M	
		Black	M-/B		138	G	Blue
		Wax	C		141		
		RAL					
Example:		10284AC = 10284 + Brass (A) + 74°C (C)					

For all applicable approvals, please refer to the technical documentation or contact your local Viking sales office.



Standard Response | Glass Bulb

Pendent | K57 (4.2)



Base part number	10222
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK004
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K57 (4.2)



Base part number	10219
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK002
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT

Pendent | K80 (5.6)



Base part number	12987 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK102
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	09992 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK122
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K115 (8.0)



Base part number	18264
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	18269
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Upright | K80 (5.6)



Base part number	12986
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK100
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Base part number	13001
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK145
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL



Base part number	09993 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK124
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL

Upright | K115 (8.0)



Base part number	18263
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK200
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, Wax



Base part number	18268
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK200
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Conventional | K80 (5.6)



Base part number	19383 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK118
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Conventional | K115 (8.0)



Base part number	18270
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK120
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

¹ HP = High Pressure (17 bar)



Standard Response | Glass Bulb

Concealed pendent | K80 (5.6)



Base part number	20034 (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK492
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Concealed pendent | K115 (8.0)



Base part number	18264A-X, 18294JN-X (Coverplate 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL, ENT



Base part number	12987A-X, 12987JN-X (Coverplate 12381)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK102
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL, ENT

Horizontal sidewall | K80 (5.6)



Base part number	12995
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK104
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	09849
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK116 (17 bar)
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, ENT

Vertical sidewall | K80 (5.6)



Base part number	12996
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK106
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome



Standard Response | Glass Bulb

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843080	3/8"/10 mm	57	Brass
843081		68	
843082		79	
843083		93	
843084		114	
843075		57	Chrome
843076		68	
843077		79	
843078		93	
845079		114	

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845242	3/8"/10 mm	57	Brass
845243		68	
845244		79	
845245		93	
845246		114	
845237		57	Chrome
845238		68	
845239		79	
845240		93	
845241		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843130	3/8"/10 mm	57	Brass
843131		68	
843132		79	
843133		93	
843134		114	
843125		57	Chrome
843126		68	
843127		79	
843128		93	
843129		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843090	1/2"/15 mm	57	Brass
843091		68	
843092		79	
843093		93	
843094		114	
843085		57	Chrome
843086		68	
843087		79	
843088		93	
843089		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
843100	1/2"/15 mm	57	Brass
843101		68	
843102		79	
843103		93	
843104		114	
843095		57	Chrome
843096		68	
843097		79	
843098		93	
845099		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845257	1/2"/15 mm	57	Brass
845258		68	
845259		79	
845260		93	
845261		114	
845252		57	Chrome
845253		68	
845254		79	
845255		93	
845256		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845272	1/2"/15 mm	57	Brass
845273		68	
845274		79	
845275		93	
845276		114	
845267		57	Chrome
845268		68	
845269		79	
845270		93	
845271		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843140	1/2"/15 mm	57	Brass
843141		68	
843142		79	
843143		93	
843144		114	
843135		57	Chrome
843136		68	
843137		79	
843138		93	
843139		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843160	1/2"/15 mm	57	Brass
843161		68	
843162		79	
843163		93	
843164		114	
843155		57	Chrome
843156		68	
843157		79	
843158		93	
843159		114	



Quick Response | Glass Bulb

Pendent | K57 (4.2)



Base part number	06720B
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK331
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	06932B
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK331
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K57 (4.2)



Base part number	06719B
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK327
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	06931B
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK327
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K80 (5.6)



Base part number	12979
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK302
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12282 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK317
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K115 (8.0)



Base part number	18258
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK352
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	18260
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK352
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT

Upright | K80 (5.6)



Base part number	12978
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK300
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12984
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK345
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	12281 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK315
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K115 (8.0)



Base part number	18257
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK350
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	18259
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK350
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Conventional | K80 (5.6)



Base part number	19391
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK310
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Conventional | K115 (8.0)



Base part number	18261
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK354
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Glass Bulb

Concealed pendent | K57 (4.2)



Base part number	14262A (Coverplate 13504)
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK465
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL, ENT

Concealed pendent | K80 (5.6)



Base part number	13503A (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK462
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	13667A (HP ¹) (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK463
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	15480A (Coverplate 13504)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK462 (MRI ²)
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, RAL



Base part number	12979A-x, 12979 JN-X (Coverplate 12381)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK302
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL

Concealed pendent | K115 (8.0)



Base part number	13614A (Coverplate 13504)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK202
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Chrome, White, RAL



Base part number	06666BA-X, 06666BJN-X (CP ³ 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK352
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL



Base part number	15481A (Coverplate 13504)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK464 (MRI ²)
Temperatures (°C)	68, 79, 93
Finishes	Chrome, White, RAL

Horizontal sidewall | K80 (5.6)



Base part number	12997
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK305
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	12285 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK319
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT

Horizontal sidewall | K115 (8.0)



Base part number	15591
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK360
Temperatures (°C)	57, 68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Vertical sidewall | K57 (4.2)



Base part number	08985
K-factor	K57 (4.2)
Thread size	3/8"/10 mm
SIN	VK337
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome

Vertical sidewall | K80 (5.6)



Base part number	12983
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK306
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome

¹ HP = High Pressure (17 bar) | ² MRI = Magnetic Resonance Imaging | ³ CP = Coverplate



Quick Response | Glass Bulb

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843050	3/8"/10 mm	57	Brass
843051		68	
843052		79	
843053		93	
843054		114	Chrome
843045		57	
843046		68	
843047		79	
843048		93	
843049		114	

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845197	3/8"/10 mm	57	Brass
845198		68	
845199		79	
845200		93	
845201		114	Chrome
845192		57	
845193		68	
845194		79	
845195		93	
845196		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843060	1/2"/15 mm	57	Brass
843061		68	
843062		79	
843063		93	
843064		114	Chrome
843055		57	
843056		68	
843057		79	
843058		93	
843059		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
843070	1/2"/15 mm	57	Brass
843071		68	
843072		79	
843073		93	
843074		114	Chrome
843065		57	
843066		68	
843067		79	
843068		93	
843069		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845121	1/2"/15 mm	57	Brass
845123		68	
845124		79	
845125		93	
845126		114	Chrome
845207		57	
845208		68	
845209		79	
845210		93	
845211		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845227	1/2"/15 mm	57	Brass
845228		68	
845229		79	
845230		93	
845231		114	Chrome
845222		57	
845223		68	
845224		79	
845225		93	
845226		114	

Horizontal sidewall | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843972	1/2"/15 mm	57	Chrome
843973		68	
843974		79	
843975		93	
843976		114	

Concealed pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845911	1/2"/15 mm	68	White
845912	(standard)	93	
845851	1/2"/15 mm	68	
845852	(long)	93	Chrome
845913	1/2"/15 mm	68	
845914	(standard)	93	
845852	1/2"/15 mm	68	
845454	(long)	93	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
843140	1/2"/15 mm	57	Brass
843141		68	
843142		79	
843143		93	
843144		114	Chrome
843135		57	
843136		68	
843137		79	
843138		93	
843139		114	

Flat spray pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
844593	1/2"/15 mm	57	Brass
844594		68	
844595		79	
844596		93	
844597		114	Chrome
844588		57	
844589		68	
844590		79	
844591		93	
844592		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843150	1/2"/15 mm	57	Brass
843151		68	
843152		79	
843153		93	
843154		114	Chrome
843145		57	
843146		68	
843157		79	
843148		93	
843149		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843120	1/2"/15 mm	57	Brass
843121		68	
843123		79	
843124		93	
843125		114	Chrome
843115		57	
843116		68	
843117		79	
843118		93	
843119		114	



Standard Response | Fusible Link

Pendent | K57 (4.2)



Base part number	05575
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK008
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K57 (4.2)



Base part number	05574
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK006
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K80 (5.6)



Base part number	12972
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK110
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K115 (8.0)



Base part number	18254
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK206
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K80 (5.6)



Base part number	12973
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK108
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K115 (8.0)



Base part number	18253
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK204
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax

Horizontal sidewall | K80 (5.6)



Base part number	12974
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK112
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome

Flush pendent | K80 (5.6)



Base part number	06697B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK400
Temperatures (°C)	74, 104
Finishes	Chrome, White



Base part number	18255
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK204
Temperatures (°C)	74, 104, 141
Finishes	Brass, Chrome, White, Black, RAL, Wax



Quick Response | Fusible Link

Pendent | K57 (4.2)



Base part number	13961
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK332
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K57 (4.2)



Base part number	13958
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK328
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K80 (5.6)



Base part number	17536
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK303
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K115 (8.0)



Base part number	18274
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK353
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	13954 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK318
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	18273
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK353
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K80 (5.6)



Base part number	17535
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK301
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome



Base part number	18275
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK351
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	13953 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK316
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome



Base part number	18272
K-factor	K115 (8.0)
Thread size	1/2"/15 mm
SIN	VK351
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Conventional | K80 (5.6)



Base part number	19392
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK311
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Base part number	18276
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK355
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Flush pendent | K80 (5.6)



Base part number	19995
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK478
Temperatures (°C)	74, 96
Finishes	Chrome, White



Concealed pendent | K115 (8.0)

Base part number	18274A-X (Coverplate 12381)
K-factor	K115 (8.0)
Thread size	3/4"/20 mm
SIN	VK353
Temperatures (°C)	74, 96
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Fusible Link

Horizontal sidewall | K80 (5.6)



Base part number	13949
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK308
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K80 (5.6)



Base part number	13955 (HP ¹)
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK320
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Concealed horizontal sidewall | K80 (5.6)



Base part number	17555
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK481
Temperatures (°C)	74, 104
Finishes	Brass, Chrome, White, Black, RAL

Vertical sidewall | K80 (5.6)



Base part number	13951
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK309
Temperatures (°C)	74, 96
Finishes	Brass, Chrome, White

Quick Response | Glass Bulb

Quick Response | Fusible Link | Extra Large Orifice (ELO)

¹ HP = High Pressure (17 bar)



Standard Response | Glass Bulb | Extra Large Orifice (ELO)



Pendent | K161 (11.2)

Base part number	17961
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK536
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax



Upright | K161 (11.2)

Base part number	09679
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK530
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT, Wax

Quick Response | Glass Bulb | Extra Large Orifice (ELO)



Pendent | K161 (11.2)

Base part number	08337
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK377
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Pendent | K161 (11.2)

Base part number	17489
K-factor	K161 (11.2)
Thread size	1/2"/15 mm
SIN	VK377
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Upright | K161 (11.2)

Base part number	10633
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK531
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL, ENT



Base part number	19305
K-factor	K161 (11.2)
Thread size	1/2"/15 mm
SIN	VK5311
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL



Base part number	19304
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK5311
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Fusible Link | Extra Large Orifice (ELO)



Concealed pendent | K161 (11.2)

Base part number	15764A
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK469
Temperatures (°C)	74, 96
Finishes	Chrome, White, Black, RAL



Upright | K161 (11.2)

Base part number	13978
K-factor	K161 (11.2)
Thread size	3/4"/20 mm
SIN	VK533
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL



Standard Response | Glass Bulb | K40

Pendent | K40 (2.8)



Base part number	12994
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK003
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Pendent | K40 (2.8)



Base part number	09994 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK023
Temperatures (°C)	57, 68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	13006
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK001
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL, Wax

Upright | K40 (2.8)



Base part number	09995 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/20 mm
SIN	VK021
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL

Concealed pendent | K40 (2.8)



Base part number	13831A (Coverplate 13504)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK461
Temperatures (°C)	68, 79, 93
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	09997
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK015
Temperatures (°C)	57, 68, 79, 93, 141, 182
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Glass Bulb | K40

Pendent | K40 (2.8)



Base part number	12981
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK329
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K40 (2.8)



Base part number	12290 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK342
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	12980
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK325
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	12286 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK340
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	10035
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK333
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	12287 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK344
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Brass, Chrome, White, Black, RAL

¹ HP = High Pressure (17 bar)



Quick Response | Fusible Link | K40

Pendent | K40 (2.8)



Base part number	13959
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK330
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Pendent | K40 (2.8)



Base part number	13964
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK343
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Upright | K40 (2.8)



Base part number	13956
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK326
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome

Upright | K40 (2.8)



Base part number	13963 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK341
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	13962
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK334
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Horizontal sidewall | K40 (2.8)



Base part number	13965 (HP ¹)
K-factor	K40 (2.8)
Thread size	1/2"/15 mm
SIN	VK346
Temperatures (°C)	74, 96, 138
Finishes	Brass, Chrome, White, Black, RAL

Quick Response | Glass Bulb | COIN™

Upright | K57 (4.2)



Base part number	12943AD
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK900
Temperatures (°C)	79
Finishes	Brass

Upright | K80 (5.6)



Base part number	20757
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK950
Temperatures (°C)	93
Finishes	Brass, ENT

Quick Response | Fusible Link | COIN™

Upright | K57 (4.2)



Base part number	12676AE
K-factor	K57 (4.2)
Thread size	1/2"/15 mm
SIN	VK901
Temperatures (°C)	96
Finishes	Brass

¹ HP = High Pressure (17 bar)



Stainless Steel | Standard Response | Glass Bulb

Pendent | K80 (5.6)



Base part number	06483B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK132
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Stainless steel, Wax

Upright | K80 (5.6)



Base part number	05012B
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK130
Temperatures (°C)	57, 68, 79, 93, 141, 182, 260
Finishes	Stainless steel, Wax

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845247	3/8"/10 mm	57	Stainless
845248		68	
845249		79	
845250		93	
845251		114	

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845006	3/8"/10 mm	57	Stainless
845007		68	
845008		79	
845009		93	
845010		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844917	3/8"/10 mm	57	Stainless
844918		68	
844919		79	
844920		93	
844921		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845262	1/2"/15 mm	57	Stainless
845263		68	
845264		79	
845265		93	
845266		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845011	1/2"/15 mm	57	Stainless
845012		68	
845013		79	
845014		93	
845015		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
843972	1/2"/15 mm	57	Stainless
843973		68	
843974		79	
843975		93	
843976		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845056	1/2"/15 mm	57	Stainless
845057		68	
845058		79	
845059		93	
845060		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845277	1/2"/15 mm	57	Stainless
845278		68	
845279		79	
845280		93	
845281		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845016	1/2"/15 mm	57	Stainless
845017		68	
845018		79	
845019		93	
845020		114	



Stainless Steel | Quick Response | Glass Bulb

Pendent | K80 (5.6)



Base part number	14692
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK339
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Stainless steel

Upright | K80 (5.6)



Base part number	14693
K-factor	K80 (5.6)
Thread size	1/2"/15 mm
SIN	VK338
Temperatures (°C)	57, 68, 79, 93, 141
Finishes	Stainless steel

Pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
845202	3/8"/10 mm	57	Stainless
845203		68	
845204		79	
845205		93	
845206		114	

Upright | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844070	3/8"/10 mm	57	Stainless
844071		68	
844072		79	
844073		93	
844074		114	

Flat spray pendent | K57 (4.2)



Part number	Size	Temp. (°C)	Finish
844927	3/8"/10 mm	57	Stainless
844928		68	
84499		79	
844930		93	
844931		114	

Flat spray upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845051	1/2"/15 mm	57	Stainless
845052		68	
845053		79	
845054		93	
845055		114	

Pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
845217	1/2"/15 mm	57	Stainless
845218		68	
845219		79	
845220		93	
845221		114	

Upright | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844075	1/2"/15 mm	57	Stainless
844076		68	
844077		79	
844078		93	
844079		114	

Horizontal sidewall | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844065	1/2"/15 mm	57	Stainless
844066		68	
845067		79	
845068		93	
845069		114	

Flat spray pendent | K80 (5.6)



Part number	Size	Temp. (°C)	Finish
844932	1/2"/15 mm	57	Stainless
844933		68	
844934		79	
844935		93	
844936		114	

Pendent | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
845232	1/2"/15 mm	57	Stainless
845233		68	
845234		79	
845235		93	
845236		114	

Upright | K115 (8.0)



Part number	Size	Temp. (°C)	Finish
844080	1/2"/15 mm	57	Stainless
844081		68	
844082		79	
844083		93	
844084		114	



Spray Nozzles



Frame style solid cone automatic or open						
SIN	Angle	K-factor	Part number	Thread	Temp.	Finishes
N/A	60°	20 (1.4)	16964	1/2"/15 mm	57 68 79 93 141 Open (Z) Open (Z)	Brass Black PTFE
		27 (1.9)	16960			
		40 (2.8)	16956			
		57 (4.2)	16952			
		80 (5.6)	16948			
	90°	20 (1.4)	16965			
		27 (1.9)	16961			
		40 (2.8)	16957			
		57 (4.2)	16953			
		80 (5.6)	16949			
	120°	20 (1.4)	16966			
		27 (1.9)	16962			
		40 (2.8)	16958			
		57 (4.2)	16954			
		80 (5.6)	16950			
	150°	20 (1.4)	16967			
		27 (1.9)	16963			
		40 (2.8)	16959			
		57 (4.2)	16955			
		80 (5.6)	16951			



Model A, B, C & D solid cone open (medium-high velocity)						
SIN	Angle	K-factor	Part number	Thread	Finishes	
VK740	30°	17 (1.2)	05133A_J	1/2"/15 mm	Brass: Replace " " with "A" ENT: Replace " " with "J"	
VK750		29 (2.0)	05134A_J			
VK760		40 (2.8)	05135A_J			
VK770		57 (4.2)	19505_J			
VK780		62 (4.3)	19506_J			
VK741	60°	17 (1.2)	05133A_K			
VK751		29 (2.0)	05134A_K			
VK761		40 (2.8)	05135A_K			
VK771		57 (4.2)	19505_K			
VK781		62 (4.3)	19506_K			
VK742	90°	17 (1.2)	05133A_L			
VK752		29 (2.0)	05134A_L			
VK762		40 (2.8)	05135A_L			
VK772		57 (4.2)	19505_L			
VK782		62 (4.3)	19506_L			
VK743	120°	17 (1.2)	05133A_M			
VK753		29 (2.0)	05134A_M			
VK763		40 (2.8)	05135A_M			
VK773		57 (4.2)	19505_M			
VK783		62 (4.3)	19506_M			
VK744	140°	17 (1.2)	05133A_N			
VK754		29 (2.0)	05134A_N			
VK764		40 (2.8)	05135A_N			
VK774		57 (4.2)	19505_N			
VK784		62 (4.3)	19506_N			



Spray Nozzles



Model E solid cone open (low-medium velocity)					
SIN	Angle	K-factor	Part number	Thread	Finishes
VK810	65°	17 (1.2)	12873_Z	1/2"/15 mm	Brass: Replace " _ " with "A" ENT: Replace " _ " with "J"
		26 (1.8)	12872_Z		
		33 (2.3)	12871_Z		
		46 (3.2)	12870_Z		
		59 (4.1)	12869_Z		
		80 (5.6)	12868_Z		
VK811	80°	104 (7.2)	12867_Z		
		17 (1.2)	12880_Z		
		26 (1.8)	12879_Z		
		33 (2.3)	12878_Z		
		46 (3.2)	12877_Z		
		59 (4.1)	12876_Z		
VK812	95°	80 (5.6)	12875_Z		
		104 (7.2)	12874_Z		
		17 (1.2)	12887_Z		
		26 (1.8)	12886_Z		
		33 (2.3)	12885_Z		
		46 (3.2)	12884_Z		
VK813	110°	59 (4.1)	12883_Z		
		80 (5.6)	12882_Z		
		104 (7.2)	12881_Z		
		17 (1.2)	12894_Z		
		26 (1.8)	12893_Z		
		33 (2.3)	12892_Z		
VK814	125°	46 (3.2)	12891_Z		
		59 (4.1)	12890_Z		
		80 (5.6)	12889_Z		
		104 (7.2)	12888_Z		
		17 (1.2)	12901_Z		
		26 (1.8)	12900_Z		
VK815	140°	33 (2.3)	12899_Z		
		46 (3.2)	12898_Z		
		59 (4.1)	12897_Z		
		80 (5.6)	12896_Z		
		104 (7.2)	12895_Z		
		17 (1.2)	12908_Z		
VK816	160°	26 (1.8)	12907_Z		
		33 (2.3)	12906_Z		
		46 (3.2)	12905_Z		
		59 (4.1)	12904_Z		
		80 (5.6)	12903_Z		
		104 (7.2)	12902_Z		
VK817	180°	17 (1.2)	12915_Z		
		26 (1.8)	12914_Z		
		33 (2.3)	12913_Z		
		46 (3.2)	12912_Z		
		59 (4.1)	12911_Z		
		80 (5.6)	12910_Z		
		104 (7.2)	12909_Z		
		17 (1.2)	12922_Z		
		26 (1.8)	12921_Z		
		33 (2.3)	12920_Z		
		46 (3.2)	12919_Z		
		59 (4.1)	12918_Z		
		80 (5.6)	12917_Z		
		104 (7.2)	12916_Z		



Spray Nozzles



Model C-1 window sprinklers				
SIN	K-factor	Part number	Thread	Finishes
VK790	22 (1.5)	01320B_	1/2"/15 mm	Brass: Replace " _ " with "A" ENT: Replace " _ " with "J"
VK791	30 (2.1)	01321B_		
VK792	43 (3.0)	01322B_		
VK793	62 (4.3)	01323B_		
VK794	84 (5.8)	01324B_	3/4"/20 mm	
VK795	105 (7.3)	01325B_		
VK796	117 (8.1)	01326B_		



Model A, B, C & D dust covers		
K-factor	Part number	Material
17-47 (1.2-3.2)	02409A	Polyethylene
53-71 (4.1-4.9)	02410A	



Model E blow-off plugs		
K-factor	Part number	Material
17, 26, 33 (1.2, 1.8, 2.3)	13161	EPDM rubber
46 (3.2)	13159	
59 (4.1)	13160	
80 (5.6)	13161	
104 (7.2)	13162	



	K-factor	Part number Brass	Part number Stainless
RD21 frame style	14 (0.98)	844800	844807
	20 (1.4)	844801	844808
	28 (1.9)	844802	844809
	46 (3.2)	844803	844810
	57 (3.7)	844804	844811
	80 (5.6)	844805	844812
	115 (8.0)	844806	844813



	K-factor	Part number Brass	Part number Stainless
MXD-SD solid cone	20 (1.4)	122395	845489
	28 (1.9)	845486	845490
	40 (2.8)	845487	845491
	57 (3.7)	845488	845492



	K-factor	Part number Brass	Part number Stainless
MXD-WD window nozzle	1.7 (0.1)	217470	841863
	16 (1.1)	131170	841864
	20 (1.4)	131182	841865
	25 (1.7)	131194	841866
	32 (2.2)	131200	841867
	40 (2.9)	131212	841868
	50 (3.6)	131224	841869
	60 (4.2)	131236	841870

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ORG1.2.1.1/1116-1216/en

For further information,
please visit
www.viking-emea.com



For further information, please contact your local Viking sales office or refer to the technical documentation.
The contents of this publication are subject to modifications without notice.

Photo
Cover: Fotolia © gemenacom

Trusted above all.



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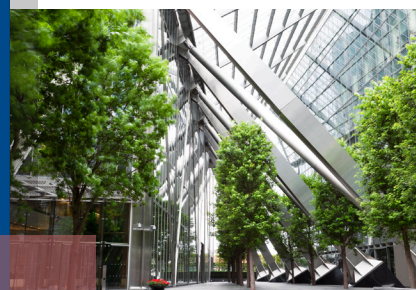


VIKING SPRINKLERS

Quick References

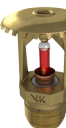
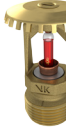
Standard Coverage Sprinkler Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.



Light, Ordinary, and Extra Hazard

Standard Response

	Recessed Pendant	Domed Concealed Pendant	Upright	Conventional	Stainless Steel Upright	Stainless Steel Recessed Pendant
5.6 K	VK102 (p/n 12987) Temp Range 135-500°F  GB	VK102-D (p/n 12987A-X) Temp Range 155-200°F  GB	VK100 (p/n 12986) Temp Range 135-500°F  GB	VK118 (p/n 19383) Temp Range 155-360°F  GB	VK130 (p/n 05012B) Temp Range 155-500°F  GB	VK132 (p/n 06483B) Temp Range 155-500°F  GB
8.0 K	VK202 (p/n 18264) Temp Range 155-500°F  GB	VK202-D (p/n 10142A-X) Temp Range 155-200°F  GB	VK200 (p/n 18263) Temp Range 155-500°F  GB	VK120 (p/n 18270) Temp Range 155-360°F  GB		
11.2 K	VK536 (p/n 07961) Temp Range 155-286°F  GB		VK530 (p/n 09679) Temp Range 155-286°F  GB			

GB - Glass Bulb
 FL - Fusible Link

★ - Also available in fusible link version.

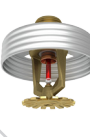
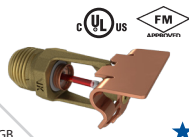
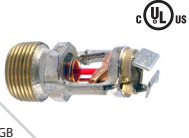
(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

- Viking sprinklers are available from the factory with three wraps of PTFE tape applied to the threads at an additional charge. To order, add a "T" to the end of the part number. See list price book for pricing details.
- Select 8.0 and 11.2 K-factor sprinklers are available with ½ NPT thread size FOR REPLACEMENT ONLY.
- The maximum working pressure for high pressure sprinklers is 250 psi, unless otherwise indicated.
- Wax coatings are available on select standard response sprinklers up to and including 286°F. The standard finish is brass.
- Cover plates and escutcheons are sold separately. Sprinklers, escutcheons, and cover plates are available in custom colors at an additional charge. See pages F-8 and F-9 of Viking's list price book for details.
- Polyester and PTFE sprinklers are suitable for decorative applications and are UL Listed for corrosion resistance.
- For corrosion resistance, Viking also offers several sprinklers that are UL Listed and/or FM Approved with Electroless Nickel PTFE (ENT) plating.

Mirage® is a registered trademark of The Viking Corporation

Light and Ordinary Hazard

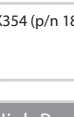
Quick Response

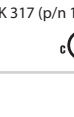
	Recessed Pendant	Domed Concealed Pendant	Flat Concealed Pendant	Upright	Horizontal Sidewall	Flat Concealed Horizontal Sidewall
5.6 K	VK302 (p/n 12979) Temp Range 135-286°F  GB  	VK302-D (p/n 12979BA-X) Temp Range 155-200°F  GB  	VK462 (p/n 13503A) Temp Range 155-200°F  GB  	VK300 (p/n 12978) Temp Range 135-286°F  GB  	VK305 (p/n 12997) Temp Range 135-286°F  GB  	VK481 (p/n 17555) Temp Range 165-220°F  FL 
8.0 K	VK352 (p/n 18258) Temp Range 135-286°F  GB  	VK352-D (p/n 18258A-X) Temp Range 155-200°F  GB  	VK464 (p/n 13614A) Temp Range 155-200°F  GB 	VK350 (p/n 18257) Temp Range 135-286°F  GB  	VK360 (p/n 15591) Temp Range 135-200°F  GB 	
11.2 K	VK377 (p/n 08337) Temp Range 155-286°F  GB  			VK531 (p/n 10633) Temp Range 155-286°F  GB  		

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

*FM Approved as Standard Response only.

Additional Quick Response Sprinklers

	Conventional	Flush Pendant	Stainless Steel Upright/Pendant	Mirage® Concealed (MRI Room Sprinkler)	Mirage® Concealed (high pressure)
5.6 K	VK310 (p/n 19391)  GB  ★	VK402 (p/n 06702B)  FL   VK478 (p/n 19995)  FL 	VK338 (p/n 14692)  GB   VK339 (p/n 14693)  GB 	VK462-MRI (p/n 15480A)  GB 	VK463 (p/n 13667A)  GB 
8.0 K	VK354 (p/n 18261)  GB ★			VK464-MRI (p/n 15481A)  GB	

	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall
5.6 K	VK 317 (p/n 12282)  GB  ★	VK315 (p/n 12281)  GB  ★	VK319 (p/n 12285)  GB  ★

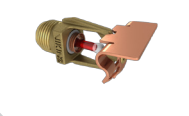
GB - Glass Bulb

FL - Fusible Link

★ - Also available in fusible link version.

Light and Ordinary Hazard

Standard Response

	Flat Plate Concealed	Flush Style	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall	Flat Concealed Horizontal Sidewall
5.6 K	VK492 (p/n 20034)  GB  	VK400 (p/n 06697B)  FL  	VK122 (p/n 09992)  GB 	VK124 (p/n 09993)  GB 	VK116 (p/n 09849)  GB 	VK481 (p/n 17555)  FL  

* Please refer to the "Light, Ordinary, and Extra Hazard" table on page 1 for additional sprinkler options.

Light Hazard Only

Quick Response

	Recessed Pendant	Flat Concealed Pendant	Upright	Horizontal Sidewall	Vertical Sidewall
2.8 K	VK329 (p/n 12981) Temp Range 135-286°F  GB	VK461 (p/n 13831A) Temp Range 155-200°F  GB	VK325 (p/n 12980) Temp Range 135-286°F  GB	VK333 (p/n 10035) Temp Range 135-286°F  GB	
4.2 K	VK331 (p/n 06720B) Temp Range 135-286°F  GB	VK465 (p/n 14262A) Temp Range 155-200°F  GB	VK327 (p/n 06719B) Temp Range 135-286°F  GB		
5.6 K	*	*	*	*	VK306 (p/n 12983) Temp Range 135-286°F  GB

* Please refer to the "Quick Response" table on the preceding page for additional sprinkler options.

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

Additional Quick Response Sprinklers

	High Pressure Recessed Pendant	High Pressure Upright	High Pressure Horizontal Sidewall
2.8 K	VK342 (p/n 12290)  GB	VK340 (p/n 12286)  GB	VK344 (p/n 12287)  GB

GB - Glass Bulb

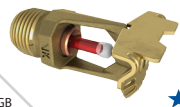
FL - Fusible Link

★ - Also available in fusible link version.

Light Hazard Only

Standard Response

Starting with the 1996 edition of NFPA 13, quick response type sprinklers are required to be used in all Light Hazard Occupancies, with exceptions for existing systems that have standard response sprinklers.

	Horizontal Sidewall	Vertical Sidewall
5.6 K	VK104 (p/n 12995) Temp Range 135-360°F  GB	VK106 (p/n 12996) Temp Range 135-286°F  GB

(NOTE) The above photos are for illustrative purposes only and might not exactly match the sprinkler indicated. Always refer to the technical documentation on Viking's web site for product dimensions and physical characteristics.

Cover Plates, Escutcheons, and Wrenches

Cover Plates and Escutcheons

Flat Cover Plate – Pendent

(VK461, VK462, VK463, VK464, VK465)

Standard diameter (2-3/4") – base part number 13504

Large diameter (3-1/4") – base part number 13642

Square cover plate – base part number 15394

Flat Cover Plate – Pendent (ELO)

(VK469, VK632 EC, VK538 EC)

Large diameter (3-1/4") – base part number 15765

Flat Cover Plate – Sidewall (VK481)

Base part number 16207

Domed Cover Plate

(VK102-D, VK202-D, VK302-D, VK352-D)

Base part number 12381

Escutcheons (recessed pendent sprinklers)

1/2" slip-on (2 piece) – base part number 06419A

3/4" slip-on (2 piece) – base part number 06420A

1/2" threaded (2 piece) – base part number 11038

3/4" threaded (2 piece) – base part number 11625

1/2" std flat escutcheon – base part number 02960A

3/4" std flat escutcheon – base part number 05464A

Ceiling rings for VK400/VK402 flush pendants sold separately. See Viking list price book for details.

Select Sprinkler Wrenches

	Part #	21475M/B
	Use with all frame-style sprinklers and spray nozzles	
	Part #	13577W/B
	Use with domed concealed pendent, wax coated, and recessed pendent sprinklers with protective shields	
	Part #	13655W/B
	Use with recessed HSW sprinklers with protective shields and domed concealed HSW sprinklers	
Heavy Duty	Part #	14047W/B
	Use with Mirage® commercial concealed pendent sprinklers	
Light Duty	Part #	14031
	Use with Mirage® commercial concealed pendent sprinklers	

To order, add desired finish (f) and temperature (t) suffix to end of base part number.

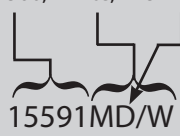
Example 1 [base(f)(t)]

VK330, Chrome, 155°F



Example 2 [base(f)(t)]

VK360, White, 175°F



Example 3 [base(f)(t)]

VK464, Brass, 200°F



Temp Suffixes (t)

135°F	A
155°F	B
165°F	C
175°F	D
200°F / 205°F	E
280°F / 286°F	G
360°F	H
500°F	L
Open	Z

Finish Suffixes (f)

Brass	A
Chrome	F
White-Poly	M-/W
Black Poly	M-/B
Wax Coated	C
Poly w/Wax	V-/W
ENT*	JN

*Electroless Nickel PTFE

Commercial Extended Coverage Sprinkler Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.

The design data presented in this document is in accordance with each sprinkler's cULus listing. Design data for other approval agencies can be found on the product's technical datasheet.



Pendent and Recessed Pendent Sprinklers

5.6 (81) K-factor



VK600, Part No. 06778B Technical datasheet Sprinkler F_080988

- Listed to 175 psi (12 bar)
- 1/2" NPT (15mm)
- Light Hazard
- Standard Response - 155°F/68°C, 175°F/79°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 ^{2,3} (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ cULus listed for quick response only. FM approved for quick response.

² cULus quick response listing available in 135°F/57°C only. FM quick response listing includes 135°F/57°C, 155°F/68°C, and 175°F/79°C.

³ Standard response listing also available in 155°F/68°C and 175°F/79°C.

* See technical datasheet for expanded FM approval criteria.

5.6 (81) K-factor



VK604, Part No. 10335 Technical datasheet Sprinkler F_062314

- Listed at 175 psi (12 bar)
- VK610 (p/n 12294) Listed for high pressure; 250 psi (17.2 bar)
- 1/2" NPT (15mm)
- Light Hazard
- Standard Response - 155°F/68°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.40)
20 x 20 ² (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for quick response.

² Standard response listing also available in 175°F/79°C.

8.0 (115) K-factor



VK602, Part No. 18262 Technical datasheet Sprinkler F_102412

- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light Hazard
- Standard Response - 155°F/68°C, 175°F/79°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 10896W/B,
Recessed Wrench - 13577W/B

16 x 16 ¹ (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 ² (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ cULus listed for quick response only. FM approved for quick response.

² cULus quick response listing available in 135°F/57°C only. FM quick response listing includes 135°F/57°C, 155°F/68°C, and 175°F/79°C.

* See technical datasheet for expanded FM approval criteria.

11.2 (161) K-factor



VK608, Part No. 08339 Technical datasheet Sprinkler F-052793

- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light Hazard
- Standard Response - 155°F/68°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C
- Standard Wrench - 05118CW/B,
Recessed Wrench - 11663W/B
- Listed with concrete tees up to 30" (762mm) in depth

16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ² (6.1x6.1)	40 (151.4)	12.8 (0.88)

¹ Available only for quick response.

² cULus quick response listing in 135°F/57°C and 175°F/79°C only.

FM quick response listing also includes 155°F/68°C.

* See technical datasheet for expanded FM approval criteria.

Pendent and Recessed Pendent Sprinklers continued from page 1

11.2 (161) K-factor


VK534, Part No. 08340
Technical datasheet Sprinkler F_051393

- QR Listing for Light and Ordinary Hazard may allow for design area reduction.
- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Light/Ordinary Hazard
- Standard Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 05118CW/B, Recessed Wrench - 11663W/B
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
LIGHT HAZARD		
16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	12.8 (0.88)
ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	30 (113.6)	7.2 (0.50)
14 x 14 ¹ (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 ² (4.9x4.9)	38 (143.9)	11.5 (0.79)
18 x 18 ² (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ² (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Available only for quick response.² Available only for standard response.

* Design data listed above is for OH Group 1. See technical datasheet for OH Group 2 data.

14.0 (202) K-factor


VK572, Part No. 13722
Technical datasheet Sprinkler 83q F_072313

- QR Listing for Ordinary Hazard may allow for design area reduction
- Listed to 175 psi (12 bar)
- 3/4" NPT (20mm)
- Ordinary Hazard
- Standard/Quick Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 07297W/B, Recessed Wrench - 13032W/B
- FM Approved for HC1, HC2, and HC3 occupancies
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	39 (147.6)	7.8 (0.54)
14 x 14 ¹ (4.3x4.3)	39 (147.6)	7.8 (0.54)
16 x 16 ² (4.9x4.9)	39 (147.6)	7.8 (0.54)
18 x 18 ² (5.5x5.5)	49 (185.5)	12.3 (0.85)
20 x 20 ² (6.1x6.1)	60 (227.1)	18.4 (1.27)

¹ UL Listed only for quick response.² UL Listed only for standard response.

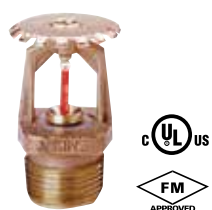
* See technical datasheet for FM approval criteria.

** Design data listed above is for OH Group 1. See technical datasheet for OH Group 2 data.

*** FM Approved as QR for all temps and spacings shown.

Upright Sprinkler

11.2 (161) K-factor


VK532, Part No. 08687
Technical datasheet Sprinkler F_053114

- QR Listing for Light and Ordinary Hazard may allow for design area reduction
- 3/4" NPT (20mm)
- Light/Ordinary Hazard
- Standard Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Quick Response - 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 05118CW/B
- FM approved for HC1, HC2, and HC3 occupancies
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
LIGHT HAZARD		
16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 ¹ (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	12.8 (0.88)
ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	30 (113.6)	7.2 (0.50)
14 x 14 ¹ (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 ² (4.9x4.9)	38 (143.9)	11.5 (0.79)
18 x 18 ² (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ² (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Available only for quick response.² Available only for standard response.

* See datasheet for FM approval criteria

** Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

14.0 (202) K-factor


VK570, Part No. 13840
Technical datasheet Sprinkler 83h F_010104

- QR Listing for Ordinary Hazard may allow for design area reduction
- Listed at 175 psi (12 bar)
- 3/4" NPT (20mm)
- Ordinary Hazard
- Standard/Quick Response - 155°F/68°C, 175°F/79°C, 200°F/93°C, 286°F/141°C
- Standard Wrench - 07297W/B
- Listed with concrete tees up to 30" (762mm) in depth
- Available with ENT coating (Nickel PTFE) for corrosion resistance

ORDINARY HAZARD*		
12 x 12 ¹ (3.7x3.7)	39 (147.6)	7.8 (0.54)
14 x 14 ¹ (4.3x4.3)	39 (147.6)	7.8 (0.54)
16 x 16 ² (4.9x4.9)	39 (147.6)	7.8 (0.54)
18 x 18 ² (5.5x5.5)	49 (185.5)	12.3 (0.85)
20 x 20 ² (6.1x6.1)	60 (227.1)	18.4 (1.27)

¹ Available only for quick response.² Available only for standard response.

* Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

Additional Design and Application Information

For systems designed to NFPA 13, water supplies are determined by applying the requirements from Chapter 11, Design Approaches (2013 Edition). Refer to sprinkler data pages on Viking's web site at www.vikinggroupinc.com for current technical data, design criteria, and listing/approval information. In some cases, Sprinkler Identification Numbers (SIN) may apply to more than one sprinkler. Please use part numbers when placing orders. NOTE: The $A_s = 5 \times L$ method must be used to determine the sprinkler protection area of coverage. (8.5.2.1)

Cover Plate Information

Flat covers are available in white, ivory, black, bright brass, brushed brass, antique brass, polished chrome, brushed chrome and brushed copper standard finishes. Domed covers are available in white, ivory, black and polished chrome. Flat covers are 3-5/16" (84mm) and 2-3/4" (69.8mm) in diameter and the domed covers are 3-1/8" (80mm) in diameter. Square cover plates measure (LxW) 3-5/16" (84mm).

Special Painted Cover Plates

In addition to standard finishes, cover plates can be special ordered in over 800 custom colors. Additional charges will apply. Orders covering special painted products are not subject to cancellation except by written permission and then only upon agreement to make payment for work already performed. Viking reserves the right to over ship special painted products produced in excess of order quantity at no charge. No return of these products is allowed.

Horizontal Sidewall Sprinklers

Standard Response available in 155°F/68°C; Quick Response available in 135°F/57°C, 155°F/68°C and 175°F/79°C

5.6 (81) K-factor



VK605, Part No. 12120

Technical datasheet Sprinkler F_072414

- 1/2" NPT (15mm)
- Light Hazard, Standard/Quick Response
- 6-12" (152-305mm) deflector distance to ceiling for horizontal ceilings. 4-6" (102-152mm) for ceilings up to 4/12 (18.4°) pitch
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- Listed for high pressure; 250 psi (17.2 bar) as VK612 (p/n 12295)

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
16 x 18 ¹ (4.9x5.5)	29 (109.8)	26.8 (1.85)
16 x 20 ¹ (4.9x6.2)	32 (121.1)	32.7 (2.25)

¹ Also available for sloped ceilings up to 4/12 (18°) pitch with same flows and pressures, installed 4-6" below ceiling.

8.0 (115) K-factor



VK606, Part No. 18271

Technical datasheet Sprinkler F_102612

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Approved for 4-12" (102-305mm) down from ceiling
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- FM approved up to 16 x 24 (4.9 x 7.3)

16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 ¹ (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 22 ² (4.9x6.7)	38 (143.8)	22.6 (1.56)

¹ 4-6" (102-152mm) down from ceiling.

² 6-12" (152-305mm) down from ceiling.

* Flows and pressures listed above are based on UL Listings only.

See technical datasheet for FM approval criteria.

8.0 (115) K-factor



VK630, Part No. 13500

Technical datasheet Sprinkler F_102905

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Approved for 4-12" (102-305mm) down from ceiling
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- Also available in a domed concealed (model p/n 13500A-X)
- Available with ENT coating (Nickel PTFE) for corrosion resistance

14 x 24 ¹ (4.3x7.3)	34 (128.7)	18.1 (1.25)
14 x 24 ² (4.3x7.3)	36 (136.3)	20.3 (1.40)
14 x 26 ¹ (4.3x7.9)	38 (144.0)	22.6 (1.56)
14 x 26 ² (4.3x7.9)	46 (174.1)	33.1 (2.28)
16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 24 (4.9x7.3)	39 (147.6)	23.8 (1.64)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
18 x 20 (5.5x6.2)	36 (136.3)	20.3 (1.40)
18 x 22 (5.5x6.7)	40 (151.4)	25.0 (1.72)

¹ 4-6" (102-152mm) down from ceiling.

² 6-12" (152-305mm) down from ceiling.

* Flows and pressures listed above are based on UL Listings only.

See datasheet for FM approval criteria.

8.0 (115) K-factor



VK638, Part No. 17375 (Corridor Sprinkler)

Technical datasheet Sprinkler F_081911

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Standard Wrench - 10896W/B, Recessed Wrench - 13655W/B
- Well suited for hallways, corridors, breeze ways, and other applications requiring a wide spray pattern
- Also available in a domed concealed model (p/n 17375A-X)

28 x 12 ¹ (8.5x3.7)	34 (128.7)	18.1 (1.24)
28 x 14 ¹ (8.5x4.3)	40 (151.4)	25.0 (1.73)

¹ 4-12" (102-305mm) down from ceiling.

Flat Plate Concealed Horizontal Sidewall Sprinkler

Cover Plate 3-5/16" (84mm) diameter; Adjustment up to 1/4" (6mm)

8.0 (115) K-factor



VK680, Part No. 17114AC

Technical datasheet Sprinkler F_050611

- 3/4" NPT (20mm)
- Light Hazard, Quick Response
- Listed for installation 4-3/8 to 12-3/8" (112-314mm) down from ceiling (measured to the center line of sprinkler)
- Wrench - 16208W/R
- Sprinkler 165°F/74°C; Cover 135°F/57°C
- Use cover plate 16207 (sold separately)

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
14 x 22 (4.3x6.7)	31 (117.3)	15.0 (1.04)
14 x 24 ¹ (4.3 x 7.3)	34 (128.7)	18.1 (1.25)
14 x 24 ² (4.3 x 7.3)	35 (132.5)	19.2 (1.32)
16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
16 x 18 (4.9x5.5)	29 (109.8)	13.1 (0.91)
16 x 20 (4.9x6.2)	32 (121.1)	16.0 (1.10)
16 x 22 (4.9x6.7)	36 (136.3)	20.3 (1.40)
16 x 24 ¹ (4.9 x 7.3)	39 (147.6)	23.8 (1.64)
16 x 24 ² (4.9 x 7.3)	40 (151.4)	25 (1.72)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.20)
18 x 20 (5.5x6.2)	36 (136.3)	20.3 (1.40)
18 x 22 (5.5x6.7)	40 (151.4)	25.0 (1.72)

¹ 4-3/8" (112mm) - 6-3/8" (162mm) down from ceiling.

² 6-3/8" (162mm) - 12-3/8" (314mm) down from ceiling.

Mirage® Flat Plate Concealed Pendent Sprinklers

5.6 (81) K-factor



VK632, Part No. 14613A
Technical datasheet Sprinkler 92a F_080107

- 1/2" NPT (15mm)
- Light Hazard
- Wrench: Heavy Duty (14047W/B); Light Duty (14031)
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C; Cover 135°F/57°C, 165°F/74°C

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for 135°F/57°C and 175°F/79°C.

8.0 (115) K-factor



VK634, Part No. 14535A
Technical datasheet Sprinkler 92a F_080107

- 3/4" NPT (20mm)
- Light Hazard
- Wrench: Heavy Duty (14047W/B); Light Duty (14031)
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C, 200°F/93°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 ¹ (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ Available only for 135°F/57°C and 175°F/79°C.

11.2 (161) K-factor



VK636, Part No. 16102A
Technical datasheet Sprinkler 89a F_121009

- 3/4" NPT (20mm)
- Light Hazard
- Wrench: Heavy Duty (15467W/B); Light Duty (15466)
- Quick Response - Sprinkler 165°F/74°C, 205°F/96°C; Cover 135°F/57°C, 165°F/74°C
- Use ELO cover plate 15765_ (3-5/16" diameter)

16 x 16 (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 (6.1x6.1)	40 (151.4)	12.8 (0.88)

11.2 (161) K-factor



VK538, Part No. 17115A
Technical datasheet Sprinkler 89h F_050511

- 3/4" NPT (20mm)
- Ordinary Hazard
- QR Listing for Ordinary Hazard may allow for design area reduction
- Wrench: Heavy Duty (15467W/B); Light Duty (15466)
- Quick Response - Sprinkler 165°F/74°C, 205°F/96°C; Cover 135°F/57°C, 165°F/74°C
- Use ELO cover plate 15765_ (3-5/16" diameter)

ORDINARY HAZARD*		
14 x 14 (4.3x4.3)	30 (113.6)	7.2 (0.50)
16 x 16 (4.9 x 4.9)	38 (143.9)	11.5 (0.79)
18 x 18 (5.5x5.5)	49 (185.5)	19.1 (1.32)
20 x 20 ¹ (6.1x6.1)	60 (227.1)	28.7 (1.98)

¹ Also listed as standard response.

* Design data listed above is for OH Group 1. See technical datasheet for Group 2 data.

Note: Base part numbers for cover plates are 13504 for standard diameter, 13642 for large diameter, 15394 for square, and 15765 for ELO. (Sold Separately)

When ordering, please add appropriate finish and temperature suffix (135°F/57°C = "A"; 165°F/74°C = "C") to base part number. Refer to Viking's list price book for ordering details.

Domed Concealed Pendent Sprinklers

5.6 (81) K-factor



VK614-D, Part No. 06778BA-X
Technical datasheet Sprinkler 88a F_061603

- 1/2" NPT (15mm)
- Light Hazard
- Standard Wrench - 13577W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

Coverage Area ft (m)	Flow gpm (lpm)	Pressure psi (bar)
16 x 16 ¹ (4.9x4.9)	26 (98.4)	21.6 (1.49)
18 x 18 (5.5x5.5)	33 (124.9)	34.7 (2.39)
20 x 20 (6.1x6.1)	40 (151.4)	51.0 (3.52)

¹ Available only for quick response.

8.0 (115) K-factor



VK616-D, Part No. 07077A-X
Technical datasheet Sprinkler 88a F_061603

- 3/4" NPT (20mm)
- Light Hazard
- Standard Wrench - 13577W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 ¹ (4.9x4.9)	26 (98.4)	10.6 (0.73)
18 x 18 (5.5x5.5)	33 (124.9)	17.0 (1.17)
20 x 20 (6.1x6.1)	40 (151.4)	25.0 (1.72)

¹ Available only for quick response.

11.2 (161) K-factor



VK618-D, Part No. 08339A-X
Technical datasheet Sprinkler 86a F_061503

- 3/4" NPT (20mm)
- Light Hazard
- Standard Wrench - 11663W/B
- Standard Response - Sprinkler 155°F/68°C; Cover 135°F/57°C
- Quick Response - Sprinkler 135°F/57°C, 155°F/68°C, 175°F/79°C; Cover 135°F/57°C, 165°F/74°C

16 x 16 ¹ (4.9x4.9)	30 (113.6)	7.2 (0.50)
18 x 18 (5.5x5.5)	33 (124.9)	8.7 (0.60)
20 x 20 (6.1x6.1)	40 (151.4)	12.8 (0.88)

¹ Available only for quick response.

Note: Base part number for cover plates is 12381. (Sold Separately)

When ordering, please add appropriate finish and temperature suffix (135°F/57°C = "A"; 165°F/74°C = "C") to base part number. Refer to Viking's list price book for ordering details.

Storage Sprinkler U.S. Quick Reference Guide

This guide is intended for general reference only. Prior to the design, layout, and/or installation of any sprinkler system, please refer to Viking's technical documentation and always consult with the AHJ. Viking makes no representation or warranty as to whether following this guide will satisfy any rule or requirement. Please visit www.vikinggroupinc.com for the most current technical data and product specifications. All products must be installed in accordance with the manufacturer's current installation instructions. Viking reserves the right to change product specifications at any time without notice and without incurring obligation.



Early Suppression Fast Response (ESFR) Sprinklers

14.0 (202) K-factor



VK520, ESFR Upright

Base Part Number:	10625
Technical Datasheet:	F_060298
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- Upright design provides more options for designing around obstructions
- Install directly onto system piping up to 3 in (75 mm) diameter pipe
- Easy to retrofit into existing upright sprinkler systems
- Can be installed on same branch line as K14 ESFR pendent sprinklers

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188
Cartoned Expanded Plastic														1188	1188	1188

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

14.0 (202) K-factor



VK500, ESFR Pendent

Base Part Number:	10284
Technical Datasheet:	F_060198
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- Sprinklers may be spaced up to 12 ft (3,7 m) for buildings up to 30 ft (9,1 m)
- Coverage area per sprinkler may not exceed 100 ft² (9,3 m²)
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																	
ceiling height (ft) >	45'					40'					35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'	
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188	
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	
Cartoned Expanded Plastic													1302	1188	1188	1188	
Exposed Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

14.0 (202) K-factor



VK502, ESFR Dry Pendent

Threaded Part Number:*	18177
Grooved Part Number:*	18176
Technical Datasheet:	F_042012
NPT Thread:	1-1/2 in
Grooved:	2 in

- Protects up to 35 ft (10,7 m) high buildings without using in-rack sprinklers
- INSTALL ON WET SYSTEMS ONLY (not approved for dry/preaction systems)
- Uses same design criteria as standard 14.0 (202) K-factor ESFR pendent
- Includes two dry sprinkler insulation boots (p/n 19330M/W)
- Offered with either a threaded or grooved connection
- Available in 165° F temperature rating

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																	
ceiling height (ft) >	45'					40'					35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	25'	20'	20'	
Class I-IV Commodity										1455	1455	1455	1302	1188	1188	1188	
Cartoned Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	
Cartoned Expanded Plastic													1302	1188	1188	1188	
Exposed Nonexpanded Plastic										1455	1455	1455	1302	1188	1188	1188	

*Standard length is 36-5/8". Also available in lengths of 18-5/8", 24-5/8", and 30-5/8". Refer to Viking's List Price Book for ordering information.

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

ESFR Sprinklers continued from Page 1

Early Suppression Fast Response (ESFR) Sprinklers

Viking ESFR sprinklers with K-factor of 16.8 and greater successfully meet the new UL 1767 test standard and compliance program for high clearance storage arrangements.

16.8 (242) K-factor



VK503, ESFR Pendent

Base Part Number:	14073
Technical Datasheet:	F_120106
NPT Thread:	3/4 in

- Protects up to 35 ft (10,7 m) high piled storage without using in-rack sprinklers in buildings with 40 ft (12,2 m) high ceilings
- Requires lower starting pressures than VK500 K14 (202) ESFR pendent
- Approved for up to 45 ft (13,7 m) ceilings with one row of in-rack sprinklers
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Nonexpanded Plastic	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Expanded Plastic													1307	1193	1193	1193
Exposed Nonexpanded Plastic	1600	1600	1600	1600	1600	1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)² Requires one row of in-rack sprinklers

16.8 (242) K-factor



VK504, ESFR Dry Pendent

Threaded Part Number:*	19016
Grooved Part Number:*	19015
Technical Datasheet:	F_062613
NPT Thread/Grooved:	1-1/2 in

- Protects up to 35 ft (10,7 m) high piled storage without using in-rack sprinklers in buildings with 40 ft (12,2 m) high ceilings
- Available in 165° F and 205° F temperature ratings
- Includes two dry sprinkler insulation boots (p/n 19330M/W)
- INSTALL ON WET SYSTEMS ONLY (not approved for dry/preaction systems)

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			32'	30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Nonexpanded Plastic						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193
Cartoned Expanded Plastic													1307	1193	1193	1193
Exposed Nonexpanded Plastic						1454	1454	1454	1454	1454	1454	1454	1307	1193	1193	1193

*Standard length is 36-1/2". Also available in lengths of 18-1/2", 24-1/2", and 30-1/2". Refer to Viking's List Price Book for ordering information.

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

22.4 (320) K-factor



VK506, ESFR Pendent

Base Part Number:	18493
Technical Datasheet:	F_081612
NPT Thread:	1 in

- Protects up to 40 ft (12,2m) high piled storage without using in-rack sprinklers with ceilings up to 45 ft (13,7 m)
- May reduce or eliminate the need for a fire pump
- Available in 165° F and 205° F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			30'		25'	
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1701	1701	1701	1701	1701	1701	1701	1701	1701	1591	1591	1591	1344	1344	1344	1344
Cartoned Nonexpanded Plastic	1701	1701	1701	1701	1701		1701	1701	1701	1591	1591	1591	1344	1344	1344	1344
Exposed Nonexpanded Plastic						1901	1901	1901	1701	1591	1591	1591	1344	1344	1344	1344

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

25.2 (363) K-factor



VK510, ESFR Pendent

Base Part Number:	12080
Technical Datasheet:	F_100102
NPT Thread:	1 in

- Protects up to 45 ft (13,7 m) high buildings without using in-rack sprinklers
- May reduce or eliminate the need for a fire pump
- cULus Listed with deflector installed 6-18 in (102-330 mm) below ceiling for Ceiling heights up to 40 feet (6-14 in down for up to 45 ft ceiling heights)
- Available in 165°F and 205°F temperature ratings

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves) ¹																
ceiling height (ft) >	45'					40'				35'			30'		25'	
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'	20'
Class I-IV Commodity	1913	1913	1913	1913	1913	1512	1512	1512	1512	1352	1352	1352	1171	1171	1171	1171
Cartoned Nonexpanded Plastic	1913	1913	1913	1913	1913	1512	1512	1512	1512	1352	1352	1352	1171	1171	1171	1171
Exposed Nonexpanded Plastic						2139	2139	2139								

¹ Required flow per sprinkler calculated using $Q=K^*(\sqrt{p})$ multiplied by number of design sprinklers (12)

ESFR Sprinklers continued from Page 2

Early Suppression Fast Response (ESFR) Sprinklers

Viking ESFR sprinklers with K-factor of 16.8 and greater successfully meet the new UL 1767 test standard and compliance program for high clearance storage arrangements.

28.0 (404) K-factor



VK514, ESFR Pendent

Base Part Number:	19591
Technical Datasheet:	F_010715
NPT Thread:	1 in

- Protects up to 43 ft (13,1 m) high piled storage without using in-rack sprinklers in buildings with 48 ft (14,6 m) high ceilings
- UL Listed for aisle width as narrow as 6 ft (1,8 m)
- Available in 165° F and 205° F temperature ranges
- May reduce or eliminate the need for a fire pump

NFPA 13 - Required Minimum Flow (GPM) - Single-Row and Double-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	48'						45'					40'				35'			30'		25'
storage height (ft) >	43'	40'	35'	30'	25'	20'	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-IV Commodity	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
Cartoned Nonexpanded Plastic	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (12)

Control Mode Specific Application (CMSA) Sprinklers

11.2 (161) K-factor



VK540, Large Drop, CMSA Upright

Base Part Number:	13167
Technical Datasheet:	F_090595
Response Type:	Standard
NPT Thread:	3/4 in

- Available in 155° F, 200° F, and 286° F temperature ratings
- Provides protection from severe challenge fires by creating larger water drops that penetrate the fire plume and cool the storage commodity
- Approved for storage of class I-IV commodities, heavyweight rolled paper, and expanded and nonexpanded plastics (cartoned and exposed)
- VK540 is approved for wet, dry, and preaction systems
- Eliminates the need for in-rack sprinklers in certain storage scenarios

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-II Commodity						2990 ²				1120	840		1120	840	
Class III Commodity										840			840	840	
Class IV Commodity										1455			1188	1455	1188
Cartoned Nonexpanded Plastic										1940			1188	1940	1188
Exposed Plastic										1940			1188	1940	1188

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (Refer to NFPA 13)

² Requires one row of in-rack sprinklers

³ Dry systems only

⁴ Flows based upon wet systems.

19.6 (283) K-factor



VK592, CMSA Pendent

Base Part Number:	14243A
Technical Datasheet:	F_033108
Response Type:	Standard
NPT Thread:	1 in

- Available in 160° F and 205° F temperature ratings
- Protects up to 40 ft (12,2 m) high buildings without using in-rack sprinklers
- Requires lower overall water usage than ESFRs and other CMSA products
- Overcomes many obstruction challenges that impact ESFR sprinklers
- 12 ft (3,7 m) spacing between sprinklers provides enhanced design flexibility
- Listed and Approved for warehouses with aisles as narrow as 4 ft (1,2 m)
- UL Listed for concrete tee construction (prohibited for ESFR sprinklers)

NFPA 13 - Required Minimum Flow (GPM) - Single-Row, Double-Row, and Multi-Row Rack Storage (without solid shelves)¹

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Class I-IV Commodity						1610	1610	1610	1610	1470	1470	1470	1176	1176	1176
Cartoned Nonexpanded Plastic						1610	1610	1610	1610	1470	1470	1470	1176	1176	1176

* Unless otherwise indicated, the above data is based on FM approval guidelines

¹ Required flow per sprinkler calculated using $Q=K(\sqrt{p})$ multiplied by number of design sprinklers (see data page)

² 40 ft ceiling height is UL listed only. FM approved for up to 35 ft ceiling height (30 ft of storage)

³ Based on UL listed design criteria. VK592 is not FM approved at 40' ceiling heights.

Control Mode Density Area (CMDA) Sprinklers

11.2 (161) K-factor

VK530, Standard Response ELO Upright



Base Part Number:	09679
Technical Datasheet:	F_010692
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK531, Quick Response ELO Upright



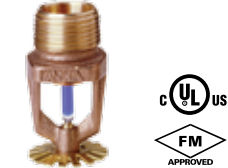
Base Part Number:	10633
Technical Datasheet:	F_120699
Response:	Quick
Element:	Glass Bulb¹
NPT Thread:	3/4 in

¹Also available with fusible link (VK533-p/n 13978)
- UL Listed ONLY

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK536, Standard Response ELO Pendent



Base Part Number:	07961
Technical Datasheet:	F_072213
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

11.2 (161) K-factor

VK377, Quick Response ELO Pendent



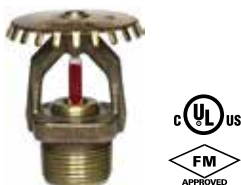
Base Part Number:	08337
Technical Datasheet:	F_030993
Response:	Quick
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.3 gpm/ft²	100 ft²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft²	100 ft²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft²	100 ft²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	51.0 psi	1,600 gpm

Control Mode Density Area (CMDA) Sprinklers

16.8 (242) K-factor

VK580, Standard Response CMDA Upright



Base Part Number:	12739A
Technical Datasheet:	F_041904
Response:	Standard
Element:	Glass Bulb
NPT Thread:	3/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft² design area)
0.45 gpm/ft²	100 ft²	45 gpm	7.2 psi	900 gpm
0.5 gpm/ft²	100 ft²	50 gpm	8.9 psi	1,000 gpm
0.6 gpm/ft²	100 ft²	60 gpm	12.8 psi	1,200 gpm
0.7 gpm/ft²	100 ft²	70 gpm	17.4 psi	1,400 gpm
0.8 gpm/ft²	100 ft²	80 gpm	22.7 psi	1,600 gpm

25.2 (363) K-factor

VK598, Standard Response CMDA Upright



Base Part Number:	19522A
Technical Datasheet:	F_090414
Response:	Standard
Element:	Glass Bulb
NPT Thread:	1 in

- FM Approved Only - Design and install per FM Global Loss Prevention Data Sheet 8-9 (July 2015) only
- FM Approved for use in dry or preaction systems to protect Class I-III commodities with storage heights of up to 40 ft (12,2 m) in warehouses as high as 45 ft (13,7 m), without the need for additional in-rack sprinkler protection
- VK598 design criteria requires specific water delivery times, as indicated on the product's technical data sheet. Viking's Technical Services team will assist customers with performing the required fluid delivery calculations
- In FM storage designs, the VK598 can be used to protect any commodity hazard that can be protected by the K11.2 (K160) upright CMSA sprinkler, Model VK540- refer to Viking technical data for required pressures when using VK598

FM Global Loss Prevention Data Sheet 8-9 (July 2015) - Required Minimum Flow (GPM) - Open Frame Rack Storage (without need for in-rack sprinklers)

ceiling height (ft) >	45'					40'				35'			30'		25'
storage height (ft) >	40'	35'	30'	25'	20'	35'	30'	25'	20'	30'	25'	20'	25'	20'	20'
Dry/Precision															
Class I-III Commodity	2140	2140	2140	2140	2140	2342	2342	2342	2342	2342	2342	2342	1992	1992	1333
Wet System															
Class I-IV Commodity													1352	1352	1352

Intermediate Level Sprinklers (In-Rack)

Preassembled with Water Shield

5.6 (81) K-factor

**VK550
SR Upright**

Base Part Number:	12986—U
Technical Datasheet:	F_012498
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK552-p/n 05557—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Water Shield

5.6 (81) K-factor

**VK556
QR Upright**

Base Part Number:	12978—U
Technical Datasheet:	F_012498
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK551-p/n 12279—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK100
SR Upright**

Base Part Number:	12986—G
Technical Datasheet:	F_052014
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK108-p/n 12973—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK102
SR Pendent**

Base Part Number:	12987—G
Technical Datasheet:	F_031414
Response:	Standard
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available with fusible link (VK110-p/n 12972—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK300
QR Upright**

Base Part Number:	12978—G
Technical Datasheet:	F_052114
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available in high pressure (250 PSI)-VK315
- Also available with fusible link (VK301-p/n 17535—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

5.6 (81) K-factor

**VK302
QR Pendent**

Base Part Number:	12979—G
Technical Datasheet:	F_033314
Response:	Quick
NPT Thread:	1/2 in
Finish:	Std. Brass



- Also available in high pressure (250 PSI)-VK317
- Also available with fusible link (VK303-p/n 17536—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Water Shield

8.0 (115) K-factor

**VK560
SR Upright**

Base Part Number:	10141—U
Technical Datasheet:	F_012498
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK562-p/n 05514—U)
- Shield protects sprinkler from water discharge above
- Use where sprinkler guards are not required

Preassembled with Water Shield

8.0 (115) K-factor

**VK566
QR Upright**

Base Part Number:	06665B—U
Technical Datasheet:	F_012498
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



- Shield protects sprinkler from water discharge above
- Also available with fusible link (VK567-p/n 13976—U)
- Use where sprinkler guards are not required

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK200
SR Upright**

Base Part Number:	10141—G
Technical Datasheet:	F_032814
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK204-p/n 05514—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK202
SR Pendent**

Base Part Number:	10142—G
Technical Datasheet:	F-032614
Response:	Standard
NPT Thread:	3/4 in
Finish:	Std. Brass



- Also available with fusible link (VK206-p/n 05516—G)
- Preassembled guard protects sprinkler from damage

Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK350
QR Upright**

Base Part Number:	06665B—G
Technical Datasheet:	F_033014
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



Preassembled with Sprinkler Guard

8.0 (115) K-factor

**VK352
QR Pendent**

Base Part Number:	06666B—G
Technical Datasheet:	F_033414
Response:	Quick
NPT Thread:	3/4 in
Finish:	Std. Brass



- Preassembled guard protects sprinkler from damage

Optional Water Shields

Model E-1 (upright)



Shield



Field-installed

Part Number:	10326
Size:	1/2 in & 3/4 in

Model F-1 (pendent)



Shield



Field-installed

Part Number:	10323 1/2"
Part Number:	10324 3/4"
Size:	1/2 in & 3/4 in

For intermediate level sprinklers preassembled with guard, the Model F-1 water shield may be ordered separately, and field installed (not available preassembled).

ELO Dry Pendant (FM Approved Standard Spray Storage Sprinklers)

11.2 (161.3) K-factor



VK544, Standard Response Dry Pendant ELO

Base Part Number:	19830
Technical Datasheet:	F_040815
Response:	Standard
Element:	Fusible Link
NPT Thread:	1-1/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft ² design area)
0.3 gpm/ft ²	100 ft ²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft ²	100 ft ²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft ²	100 ft ²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft ²	100 ft ²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft ²	100 ft ²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft ²	100 ft ²	80 gpm	51.0 psi	1,600 gpm

11.2 (161.3) K-factor



VK547, Quick Response Dry Pendant ELO

Base Part Number:	19828
Technical Datasheet:	F_040915
Response:	Quick
Element:	Fusible Link
NPT Thread:	1-1/4 in

Example Density	Std CMDA Spk Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft ² design area)
0.3 gpm/ft ²	100 ft ²	30 gpm	7.2 psi	600 gpm
0.4 gpm/ft ²	100 ft ²	40 gpm	12.8 psi	800 gpm
0.5 gpm/ft ²	100 ft ²	50 gpm	19.9 psi	1,000 gpm
0.6 gpm/ft ²	100 ft ²	60 gpm	28.7 psi	1,200 gpm
0.7 gpm/ft ²	100 ft ²	70 gpm	39.1 psi	1,400 gpm
0.8 gpm/ft ²	100 ft ²	80 gpm	51.0 psi	1,600 gpm

Note: Two optional insulating boots (19330M/W) provided with every plain barrel style sprinkler; one boot shipped with each standard adjustable and recessed adjustable model. Installation of the provided boot assembly is optional.

Extended Coverage Storage Sprinkler

25.2 (363) K-factor



VK595, EC Upright (CMDA and CMSA Applications)

Base Part Number:	16859A
Technical Datasheet:	F_121610
Response:	Quick/Standard
Element:	Fusible Link
NPT Thread:	1 in

- 14 ft x 14 ft maximum coverage area (4.3 m x 4.3 m)
- Suitable for "unobstructed" and certain "non-combustible obstructed" construction
- FM Approved as a quick response, extended coverage sprinkler for both storage and non-storage applications (refer to FM Loss Prevention datasheets and Viking technical datasheet page 124j-m for FM design and installation details)
- Available in 165° F and 214° F temperature ratings

Example Density	Sprinkler Spacing	(Q) Flow Rate / Sprinkler	(P) Starting Pressure	Example Water Demand (2,000 ft ² design area)
0.3 gpm/ft ²	196 ft ²	66.7 gpm	7.0 psi	734 gpm
0.4 gpm/ft ²	196 ft ²	78.4 gpm	9.7 psi	863 gpm
0.5 gpm/ft ²	196 ft ²	98.0 gpm	15.1 psi	1,078 gpm
0.6 gpm/ft ²	196 ft ²	117.6 gpm	21.8 psi	1,294 gpm
0.7 gpm/ft ²	100 ft ²	70.0 gpm	7.7 psi	1,400 gpm
0.7 gpm/ft ²	196 ft ²	137.2 gpm	29.6 psi	1,509 gpm
0.8 gpm/ft ²	100 ft ²	80.0 gpm	10.1 psi	1,600 gpm
0.8 gpm/ft ²	196 ft ²	156.8 gpm	38.7 psi	1,725 gpm

General Inquiries and Technical Services

General Inquiries
Toll Free: (800) 968-9501
P: (269) 945-9501
F: (269) 945-9599
info@vikingcorp.com

Technical Services
Toll Free: (877) 384-5464
P: (269) 945-9501
F: (269) 818-1680
techsvcs@vikingcorp.com



VIKING SPRINKLERS

Technical Data



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

1. PRODUCT IDENTIFICATION

This document covers the following product, hereafter referred to as “sprinkler”:

VK1001: Standard Response, Standard Coverage, Upright, K5.6 (80.6) Sprinkler.

2. INTENDED USE

The sprinkler is intended to be used in automatic fire sprinkler systems as allowed by applicable approval authorities. The sprinkler must be used in accordance with:

1. the sprinkler's Listings, Approvals, and associated design requirements.
2. the recognized design and installations standards issued, for example NFPA, FM, EN, VdS, or LPCB.
3. the latest revisions of all applicable manufacturer's documentation.



Governmental codes, ordinances, and standards may apply and may differ from one another.

WARNING

Cancer and Reproductive Harm www.P65Warnings.ca.gov

3. LISTING AND APPROVALS

Refer to section 5 for details and requirements that must be followed.



cULus Listed



VdS Approved



FM Approved



UKCA Approved



CE



MED Approved



LPCB Approved



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

4. TECHNICAL SPECIFICATIONS

4.1 Definitions

Standard Upright Sprinkler: A sprinkler intended to be oriented with the deflector above the frame so water flows upward through the orifice, striking the deflector and forming an umbrella-shaped spray pattern downward. These sprinklers are marked “SSU” (Standard Spray Upright) or “UPRIGHT” on the deflector.

Corrosion Resistant Sprinkler: A special service sprinkler with non-corrosive protective coatings, or that is fabricated from non-corrosive material, for use in atmospheres that would normally corrode sprinklers. Standard sprinklers can be ordered as corrosion resistant sprinklers and can be used with escutcheons when allowed by the approval body.

4.2 Ratings and Physical Characteristics

Parameter	Value
Minimum operating pressure	7 psi (0.5 bar)
Maximum rated pressure	UL: 250 psi (17 bar) FM and CE: 175 psi (12 bar)
Factory tested pressure	500 psi (35 bar)
Thread size	1/2" NPT or 15 mm BSPT
Nominal K-factor	5.6 U.S. (80.6)
Minimum temperature rating (glass bulb)	-65 °F (-55 °C)

4.3 Markings and Dimensions

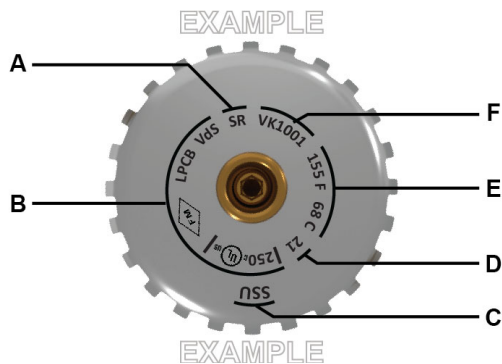


Figure – 1: Markings

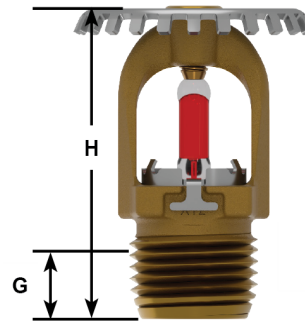


Figure – 2: Dimensions

Ref	Description	Value
A	Response type	SR: Standard Response
B	Listings and Approvals	See sections 3 and 5
C	Sprinkler type	SSU: Standard Spray Upright
D	Manufacture date (year)	See marking
E	Nominal temperature rating	See marking
F	Manufacturer's Sprinkler Identification Number (SIN)	VK1001
G	Nominal pipe engagement	7/16" (11 mm)
H	Height	1 15/16" (49 mm)

4.4 Materials of Construction

NOTICE: Do not disassemble the sprinkler.

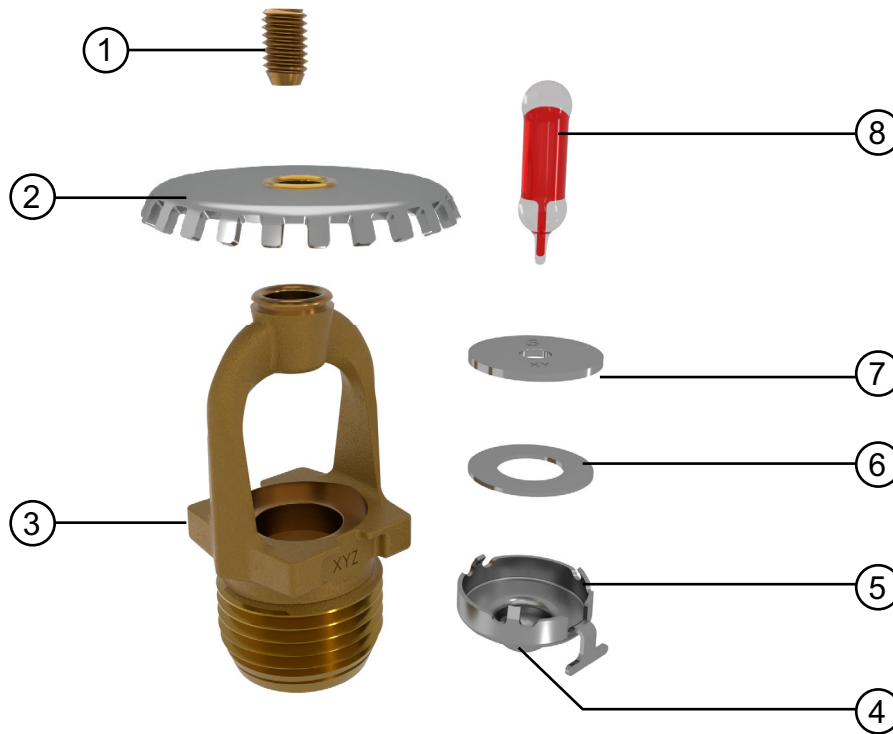


Figure – 3 Sprinkler Components

Ref	Description	Material
1	Compression screw	Brass CW612N, CW508L, UNS-C36000 or UNS-C26000
2	Deflector	Stainless steel UNS S30400
3	Sprinkler body	CW602N, UNS-C84400 or QM brass
4	Pip cap seal	Polytetrafluoroethylene (PTFE)
5	Pip cap shell	Stainless steel UNS-S44400
6	Belleville spring	Nickel alloy
7	Pip cap disc	Stainless steel UNS-S30100
8	Bulb	Glass, nominal 0.20" (5 mm) diameter



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

5. LISTING AND APPROVAL DESIGN REQUIREMENTS

5.1 Listing and Approval Specifications

Sprinkler Base Part Number ¹	Thread Size		Approval Body				
	NPT	BSPT	cULus		FM		
			Approval Specification	Maximum working water pressure	Approval Specification	Maximum working water pressure	
23867	1/2"	—	A1	250 psi (17 bar)	A1	175 psi (12 bar)	
23879	—	15 mm	A1	250 psi (17 bar)	A1	175 psi (12 bar)	
Additional Listings and Approvals Maximum WWP 175 psi (12 bar)							
			CE	LPCB	VdS	UKCA	MED
23867	1/2"	—	A1	A1	A1	A1	A1
23879	—	15 mm	A1	A1	A1	A1	A1
Approval Specification (Temperature Ratings) Key: A = 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C) and 286 °F (141 °C)							
Approval Specification (Finishes) Key: 1 = Brass, Chrome, White Polyester ^{2,3} , Black Polyester ^{2,3} , and ENT ^{3,4}							
1 For complete part number, refer to Viking's current price list.							
2 For White Polyester and Black Polyester, other colors are available upon request and will carry the same Listings and Approvals as the standard colors.							
3 cULus Listed as corrosion resistant.							
4 FM Approved as corrosion resistant.							

5.2 cULus Listing Requirements and Details

The sprinkler is cULus Listed as indicated in Table 5.1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers. This sprinkler is designed for use in light, ordinary, and extra hazard occupancies.

5.3 FM Approval Requirements and Details

The sprinkler is FM Approved as standard response Non–Storage upright sprinkler as indicated in the FM Approval Guide. The sprinkler is also approved for use in FM Approved vacuum dry sprinkler systems with a maximum supervisory vacuum pressure of –3 psi (–207 mbar). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling. For specific application and installation requirements, refer to the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2–0).



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

5.4 Additional Approval Requirements and Details

Refer to Table 5.1 for approved configurations allowed by each of the following approvals.

- CE CPR: Standard EN 12259-1:1999 +A3:2006; Declaration of Performance DOP_XT1A.
- LPCB: Standard EN 12259-1:1999 +A3:2006; Certificate Number 096m.
- VdS: Standard EN 12259-1:1999 +A3:2006; Certificate Number G 422003.
- UKCA: Standard EN12259-1:1999 +A3:2006; Declaration of Conformity UKCA DOC_S5048.
- MED: Standard EN 12259-1:1999 +A3:2006; Declaration of Conformity DOC_MED_XT1.

For specific application and installation requirements, refer to the latest applicable governmental codes, ordinances, and standards for the installation location.

5.5 Corrosion Resistant Coatings

The corrosion resistant coatings have passed the standard corrosion tests required by the approving agencies and are listed and approved as indicated in Table 5.1. These tests do not represent all possible corrosive environments. The Electro-less Nickel PTFE (ENT) finish passed the UL 199 thirty day corrosion test and is cULus listed and FM Approved as corrosion resistant. For automatic sprinklers, the ENT coating is applied to all exposed exterior surfaces, including the waterway.

Prior to installation, verify that the coatings are compatible with, or suitable for, the proposed environment. The ENT finish has not been evaluated for environments containing chlorine, such as indoor swimming pools. The ENT finish is not recommended for these applications.

5.6 Sprinkler Guards and Water Shields

The sprinkler is approved for use with the Model XG Sprinkler Guard and the Model XWU upright water shield. Refer to the Guards and Water Shields for XT1 Sprinklers technical data sheet for more information.

5.7 Available Temperature Ratings

Viking sprinklers are available in several temperature ratings that relate to a specific temperature classification. Applicable installation rules mandate the use and limitations of each temperature classification. The maximum expected ceiling temperature must be known before selecting the appropriate temperature classification.

Before ordering a sprinkler, use a maximum-reading thermometer to determine the maximum expected temperature. In addition, refer to recognized installation rules which may require a higher temperature classification to be used. The rules may depend upon the following criteria:

- sprinkler location
- occupancy classification
- commodity classification
- storage height
- other nearby hazards

In all cases, the maximum expected ceiling temperature dictates the lowest allowable temperature classification. Sprinklers located immediately adjacent to a heat source may require a higher temperature rating.



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

6. ORDERING PROCEDURE

6.1 Sprinkler

1. Choose a sprinkler base part number with the required thread size and listing or approval (refer to section 5):
2. Add the suffix for the desired finish.
3. Add the suffix for the desired temperature rating.

NOTE: For Polyester, insert the desired temperature rating suffix where the dash (–) is shown.

EXAMPLE: 23867MB/W = VK1001 with white polyester finish and 155 °F (68 °C) nominal temperature rating. This sprinkler is to be installed into an area with a maximum ambient temperature of 100 °F (38 °C).

1. Sprinkler Base Part Number		2. Finish		3. Temperature Rating			
See Section 5		Description	Suffix	Nominal Temperature Rating	Bulb Color	Maximum Ambient Ceiling Temperature	Suffix
23867	1/2" NPT	Brass	A	135 °F (57 °C)	Orange	100 °F (38 °C)	A
23879	15 mm BSPT	Chrome	F	155 °F (68 °C)	Red	100 °F (38 °C)	B
		White Polyester	M–W	175 °F (79 °C)	Yellow	150 °F (65 °C)	D
		Black Polyester	M–B	200 °F (93 °C)	Green	150 °F (65 °C)	E
		ENT	JN	286 °F (141 °C)	Blue	225 °F (107 °C)	G
				OPEN	—	—	Z

6.2 Sprinkler Accessories



Figure – 4: Sprinkler Accessories

Image Reference	Part Number	Description
1)	23559MB	Straight wrench: required for proper installation
2)	01724A	Sprinkler cabinet: holds up to 6 sprinklers
3)	01725A	Sprinkler cabinet: holds up to 12 sprinklers (not shown)



TECHNICAL DATA SHEET

VK1001 Standard Response Upright Sprinkler K5.6 (80.6)

7. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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



Handling and Installation Instructions

Model XT-1 Upright Sprinklers

bg	Инсталирайте и пуснете продукта в експлоатация само ако следната инструкция е ясно разбрана.	lv	Produkta iemontēšanu un ekspluatācijas sākšanu veikt tikai tad, ja dotā instrukcija ir pilnībā saprasta.
cs	Namontujte a spusťte do provozu produkt pouze tehdy, když jste jasně pochopili tento návod.	lt	Produktą montuokite ir pradėkite eksploatuoti tik tuomet, jei aiškiai suprantate šią instrukciją.
de	Du må kun montere og idriftsætte produktet, hvis du har forstået følgende vejledning til fulde.	mt	Installa u f'ad dem il-prodott biss jekk l-istruzzjonijiet li ġejjin jinftehm u b'mod ċar.
de	Produkt nur einbauen und in Betrieb nehmen, wenn die nachfolgende Anleitung klar verstanden wird.	nl	Product alleen installeren en in gebruik nemen, als de volgende instructies begrepen zijn.
el	Η εγκατάσταση και θέση σε λειτουργία του προϊόντος επιτρέπονται μόνο εάν οι ακόλουθες οδηγίες έχουν γίνει κατανοητές.	no	Ikke installer og ta i bruk produktet uten at følgende anvisninger er tydelig forstått.
en	Do not install and commission the product unless you have clearly understood the instructions below.	pl	Produkt należy montować i uruchamiać tylko wtedy, gdy poniższe instrukcje są w pełni zrozumiałe.
es	Instalar el producto y ponerlo en funcionamiento solo cuando se hayan comprendido claramente las siguientes instrucciones.	pt	Instalar e colocar o produto em funcionamento somente se as instruções a seguir forem claramente compreendidas.
et	Paigaldage toode ja kasutage seda ainult siis, kui saate alljärgnevast juhendist selgelt aru.	ro	Montați produsul și puneți-l în funcțiune numai dacă instrucțiunea următoare este înțeleasă clar.
fi	Tuotteen saa asentaa ja ottaa käyttöön vain, jos jäljempänä oleva ohje ymmärretään selvästi.	ru	Не устанавливайте и не принимайте оборудование в эксплуатацию, если вы четко не поняли инструкции ниже
fr	N'installer et ne mettre en service le produit que si les instructions suivantes ont été clairement comprises.	sk	Namontujte a spusťte do prevádzky výrobok iba vtedy, pokiaľ ste jasne pochopili tento návod.
ga	Ná déan an táirge a shuiteail agus a choimisiúnu mura dtuigean tu na teoracha thíos go soileir.	sl	Izdelek vgradite in zaženite samo, če ste dobro razumeli navodila v nadaljevanju.
hr	Ne instalirajte i ne puštajte proizvod u rad ako niste jasno razumjeli donje upute.	sr	Ne instalirajte i ne puštajte proizvod u rad ako niste jasno razumeli uputstva u nastavku.
hu	Csak akkor építse be a terméket és helyezze üzembe, ha a következő útmutatót egyértelműen megértette.	sv	Montera och driftsätt produkten endast om du förstår den efterföljande instruktionen.
is	Settu ekki upp eða taktu vöruna í notkun nema þú hafir skilið greinilega leiðbeiningarnar hér að neðan.	tr	Aşağıdaki talimatları açıkça anlamadan ürünü kurmayın ve devreye almayın.
it	Montare il prodotto e metterlo in funzione solo se si sono comprese appieno le seguenti istruzioni.		

1. PRODUCT IDENTIFICATION

This document covers the following products, hereafter referred to as “sprinkler”:

- VK1001 Standard Response Upright Sprinkler K5.6 (80.6)
- VK2001 Standard Response Upright Sprinkler K8.0 (115)
- VK2002 Standard Response Upright Sprinkler K8.0 (115)
- VK3001 Quick Response Upright Sprinkler K5.6 (80.6)
- VK3501 Quick Response Upright Sprinkler K8.0 (115)
- VK3502 Quick Response Upright Sprinkler K8.0 (115)
- OTHER APPLICABLE DOCUMENTS

2. OTHER APPLICABLE DOCUMENTS

For intended use and relevant conditions for the safe use of the specific sprinkler refer to the appropriate *Technical Data Sheet*.



Handling and Installation Instructions

Model XT-1 Upright Sprinklers

3. TRANSPORT AND HANDLING

⚠ WARNING

A damaged or compromised sprinkler poses the risk of fatal consequences.

Damaged or compromised sprinklers will not operate properly which could lead to loss of life.

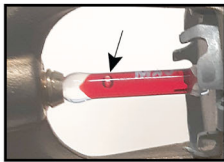
- NEVER use a sprinkler that has been exposed to temperatures exceeding the maximum allowed ambient temperature.
- NEVER use a sprinkler with a loss of liquid from the glass bulb or damage to the fusible element. A small bubble should be visible within the glass bulb; rotate the sprinkler to a horizontal position while observing the bulb to see the bubble.
- NEVER use a sprinkler that has been dropped or damaged.
- ALWAYS Protect the sprinkler from mechanical damage during storage, transport, and handling.
- NEVER use sprinklers that have been painted by anyone other than the manufacturer.
- ALWAYS protect sprinklers from being painted during installation or replacement in accordance with the installation standards.
- NEVER clean sprinklers with anything other than 7 psi or lower compressed air.
- NEVER apply soap, water, ammonia, adhesives, solvents or any other fluids on sprinklers.
- Destroy every damaged or compromised sprinkler.

NOTICE

Protect sprinklers during transport and handling.

- ALWAYS handle the sprinkler with care.
- ALWAYS keep the protective cap on the sprinkler during transport and handling.
- NEVER remove the protective cap until the fire sprinkler system is placed in service and the potential for mechanical damage no longer exists.
- ALWAYS protect the sprinkler from direct sunlight during transport and handling.
- ALWAYS store sprinkler in a cool, dry, protected area.
- ALWAYS use original manufacturer's shipping containers.
- NEVER store a sprinkler loose in a box, bin, bucket, or other type of container.
- ALWAYS keep the sprinkler separated from other sprinklers.
- NEVER allow metal parts to contact the sprinkler operating elements.

NOTE: If the glass bulb included on the sprinkler has been exposed to ultraviolet light, the color inside the bulb may fade. This color change does not affect the operation of the sprinkler.



CORRECT
(Bulb intact, bubble visible)



INCORRECT
(bulb cracked, fluid missing)



CORRECT
(Protective caps in place)



INCORRECT
(Protective caps not in place)



CORRECT
Container



INCORRECT
(Stored loose in a box)



Handling and Installation Instructions

Model XT-1 Upright Sprinklers

4. INSTALLATION

⚠ WARNING

Installation by insufficiently qualified personnel poses the risk of fatal consequences.

- This sprinkler must be installed properly by qualified personnel familiar with safe practices and applicable and recognized design and installation standards issued, for example, by NFPA, FM, VdS, or LPCB, and trained how to properly perform the installation procedures.

⚠ CAUTION

Cutting Hazard.

Sprinklers, accessories, cabinets, and packaging can have sharp edges that can cause cuts.

- Wear appropriate personal protective equipment (gloves) while handling product.

Optional Guards, Shields, and Escutcheons: If the sprinkler shall be installed together with a guard, shield, or escutcheon refer to the applicable documents for the products used.

1. Install all required piping in the intended installation location.
2. Verify that the sprinkler model/style, K-factor, temperature rating, and response characteristics are appropriate for the intended installation location. See Table 1 and Figure 4.
3. Inspect the sprinkler for damage. Destroy every damaged or compromised sprinkler.
The following are examples in which sprinklers are considered damaged or compromised. Replace the sprinkler in the following cases:
 - Sprinkler with a loss of fluid from the glass bulb or damage to the fusible element.
 - Sprinklers that have been field painted, caulked, or mechanically damaged.
 - Sprinklers showing signs of corrosion.
4. Verify that the sprinkler is protected with the protective cap or clip.
5. Apply a small amount of pipe-joint compound or tape to the external threads of the sprinkler only. Do not allow a build-up of compound inside the sprinkler inlet (Figure1).

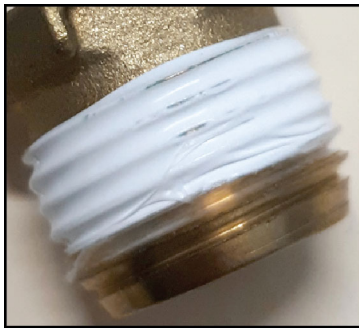


Figure – 1



Handling and Installation Instructions

Model XT-1 Upright Sprinklers

6. **NOTICE:** Do not use the deflector to start threading the sprinkler into a fitting. Use **ONLY** the approved wrench to install the sprinkler. Refer to the sprinkler's *Technical Data Sheet*.

Carefully slide the proper wrench onto the wrench flats (Figure 2).

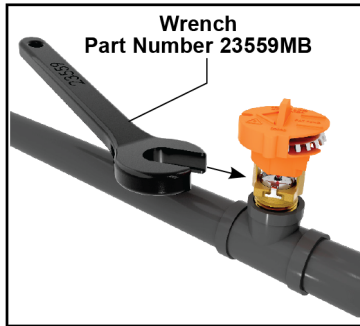


Figure – 2

7. **NOTICE:** Over-tightening the sprinkler can cause permanent damage. For 1/2" NPT (or 15 mm BSPT) sprinkler, tighten up to a maximum torque of 14 ft-lbs (19 Nm). For 3/4" NPT (or 20 mm BSPT) sprinkler, tighten up to a maximum of 20 ft-lbs (27,1 Nm).

Tighten the sprinkler as necessary (Figure 3). If applicable, install a sprinkler guard and water shield.

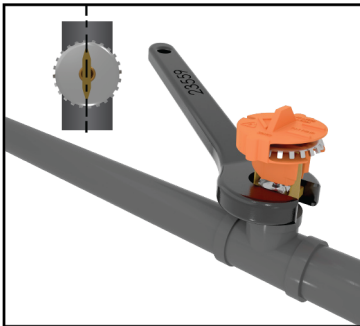


Figure – 3

8. **NOTICE:** Sprinkler protective caps/clips must be removed from the sprinkler before placing the system in service. Test the entire sprinkler system.

Refer to the applicable system documentation, regulations, and standards to ensure compliance.

Table 1: Sprinkler Markings

Ref	Parameter	
A	Response type	
B	Listings and approvals	
C	Sprinkler type	
D	Manufacture date	
E	Nominal temperature rating	
F	Manufacturer's Sprinkler Identification Number (SIN)	



Handling and Installation Instructions

Model XT-1 Upright Sprinklers

5. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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



Operation and Maintenance Instructions

Model XT-1 Sprinklers

1. PRODUCT IDENTIFICATION

This document covers the following product, hereafter referred to as “sprinkler” (SR=Standard Response, QR=Quick Response):

- VK1001 SR Upright Sprinkler K5.6 (80.6)
- VK2001 SR Upright Sprinkler K8.0 (115)
- VK2002 SR Upright Sprinkler K8.0 (115)
- VK3001 QR Upright Sprinkler K5.6 (80.6)
- VK3501 QR Upright Sprinkler K8.0 (115)
- VK3502 QR Upright Sprinkler K8.0 (115)
- VK1021 SR Pendent Sprinkler K5.6 (80.6)
- VK2021 SR Pendent Sprinkler K8.0 (115)
- VK2022 SR Pendent Sprinkler K8.0 (115)
- VK3021 QR Pendent Sprinkler K5.6 (80.6)
- VK3521 QR Pendent Sprinkler K8.0 (115)
- VK3522 QR Pendent Sprinkler K8.0 (115)
- VK1181 SR Conventional Sprinkler K5.6 (80.6)
- VK1201 SR Conventional Sprinkler K8.0 (115)
- VK1202 SR Conventional Sprinkler K8.0 (115)
- VK3101 QR Conventional Sprinkler K5.6 (80.6)
- VK3541 QR Conventional Sprinkler K8.0 (115)
- VK3542 QR Conventional Sprinkler K8.0 (115)

WARNING

Cancer and Reproductive Harm www.P65Warning.ca.gov

2. OTHER APPLICABLE DOCUMENTS

For intended use and relevant conditions for the safe use of the specific sprinkler, refer to the appropriate Technical Data Sheet. In case an installed sprinkler needs to be replaced, refer to the appropriate Handling and Installation Instructions for the installation of the new sprinkler.

3. MAINTAINING OPERATIONAL READINESS

Functionality

During fire conditions, the operating element fuses or shatters (depending on the type of sprinkler), releasing the pip cap and sealing assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to control or extinguish the fire.

WARNING

This section contains important safety information. Read and follow all information.

Damaged or Compromised Sprinklers

Damaged or compromised sprinklers will not operate properly which could lead to loss of life.

- NEVER clean, paint, or caulk sprinklers.
- NEVER apply soap, water, ammonia, adhesives, solvents or any other fluids on sprinklers.
- NEVER expose sprinklers to temperatures exceeding the maximum allowed ambient ceiling temperature. See the Technical Data Sheet.
- ALWAYS replace a compromised or damaged sprinkler.
- NEVER attempt to repair or reassemble a sprinkler.
- ALWAYS replace operated sprinklers and cover assemblies and sprinklers exposed to corrosive products of combustion.
- Replacement of sprinklers must only be performed following the instructions in section 4.

The following are examples in which sprinklers are considered damaged or compromised. Replace the sprinkler in the following cases:

- Sprinkler with a loss of fluid from the glass bulb or damage to the fusible element.
- Sprinklers or cover plate assemblies that have been field painted, caulked, or mechanically damaged.
- Sprinklers showing signs of extraordinary corrosion.



Obstructions and obstacles

Obstructions and obstacles may compromise sprinkler discharge patterns which are critical for proper fire protection.

- NEVER attach items to sprinklers or hang items from the ceiling in an area protected with sprinklers.
- NEVER install walls in areas protected with sprinklers without having a specialized company verifying the design of the sprinkler system.
- ALWAYS remove obstructions and obstacles to sprinkler spray patterns.

Sprinkler systems that have been subjected to a fire

Sprinkler systems that have been subjected to a fire must be returned to service as soon as possible.

- After an event of fire, the entire sprinkler system must be inspected for damage and repaired as necessary.
- Refer to the minimum requirements of the Authority Having Jurisdiction for replacement of sprinklers.
- Consider the employment of a fire patrol as long as the sprinkler system is out of service.

Inspections and testing

The owner is responsible for having the sprinklers inspected and tested according to standards of the applicable approval body and to the requirements of the Authority Having Jurisdiction to maintain proper operating condition of the system.

- Sprinklers must be inspected on a regular basis for corrosion, mechanical damage, obstructions, paint, etc. Frequency of inspections may vary due to corrosive atmospheres, water supplies, and activity around the sprinkler.

The applicable approval body or Authority Having Jurisdiction may require sprinklers to be replaced after a specified term of service.

- Refer to the standards of the applicable approval body, such as NFPA, FM, VdS, or LPCB, and the requirements of the Authority Having Jurisdiction for detailed inspection, testing and replacements requirements.

Sprinklers removed from the system for testing or for any other purpose must be replaced according to section 4.

4. REMOVAL AND REPLACEMENT

⚠ WARNING

Removal and replacement of sprinklers by insufficiently qualified personnel poses the risk of fatal consequences in case of fire.

- Removal or replacement of sprinklers must be performed by qualified personnel familiar with safe practices and applicable and recognized design and installation standards issued, for example, by NFPA, FM, VdS, or LPCB, and trained how to properly perform the installation procedures.

⚠ WARNING

Removal and replacement of sprinklers will temporarily eliminate the fire protection capabilities of the sprinkler system.

- Consider the employment of a fire patrol in the affected area.
- Prior to proceeding, notify all Authorities Having Jurisdiction.



Operation and Maintenance Instructions

Model XT-1 Sprinklers

WARNING

Re-installation of a removed sprinkler may compromise the operational safety of the sprinkler system.

- NEVER reinstall a removed sprinkler.
 - ALWAYS use new sprinklers for replacement.
1. Select new sprinklers with identical performance characteristics as well as respective accessories such as escutcheons, cover plates, and protective caps. A stocked spare sprinkler cabinet may be provided for this purpose on site.
 2. According to appropriate system description and/or valve instructions, remove the system from service, drain all water, and relieve all pressure on the piping.
 3. Only for flush and concealed style sprinklers: Remove the ceiling ring or cover plate assembly of the old sprinkler by gently unthreading or pulling it off the sprinkler body (depends on the sprinkler model used).
 4. Use the proper sprinkler wrench for the old sprinkler according to its Technical Data Sheet.
 5. Only for flush and concealed style sprinklers, but not for domed concealed sprinklers: Replace the plastic protective cap over the old sprinkler and fit the wrench over the cap.
 6. Use the wrench to remove the old sprinkler by turning it counterclockwise to unthread it from the piping.
 7. Install the new sprinkler by following its Handling and Installation Instructions.
 8. Place the system back in service and secure all valves.
 9. Check for and repair all leaks.

5. DISPOSAL

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

6. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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

**BULLETIN****REGULATORY AND HEALTH
WARNINGS**

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 www.vikinggroupinc.com

1. DESCRIPTION

Regulatory and Health Warnings applying to materials used in the manufacture and construction of fire protection products are provided herein as they relate to legally mandated jurisdictional regions.

⚠ WARNING**STATE OF CALIFORNIA, USA**

Installing or servicing fire protection products such as sprinklers, valves, piping etc. can expose you to chemicals including, but not limited to, lead, nickel, butadiene, titanium dioxide, chromium, carbon black, and acrylonitrile which are known to the State of California to cause cancer or birth defects or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov

2. WARRANTY TERMS AND CONDITIONS

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



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

1. PRODUCT IDENTIFICATION

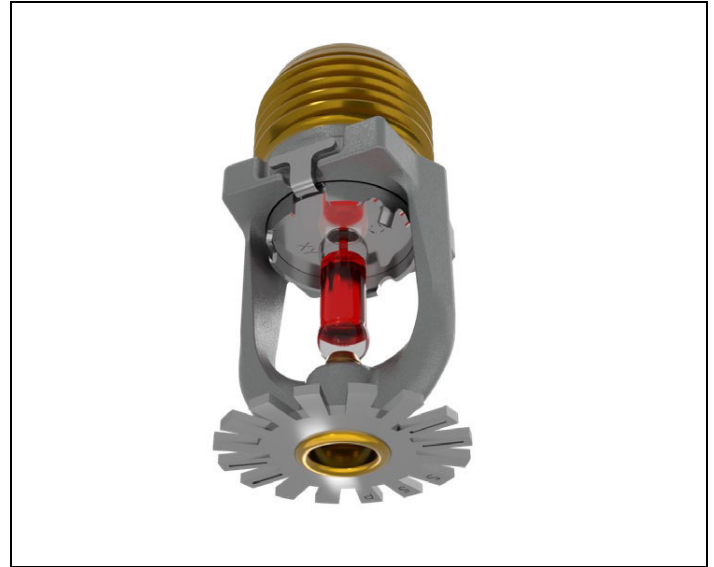
This document covers the following product, hereafter referred to as “sprinkler”:

VK1021: Standard Response, Standard Coverage, Pendent, K5.6 (80.6) Sprinkler.

2. INTENDED USE

The sprinkler is intended to be used in automatic fire sprinkler systems as allowed by applicable approval authorities. The sprinkler must be used in accordance with:

1. the sprinkler's Listings, Approvals, and associated design requirements.
2. the recognized design and installations standards issued, for example NFPA, FM, EN, VdS, or LPCB.
3. the latest revisions of all applicable manufacturer's documentation.



Governmental codes, ordinances, and standards may apply and may differ from one another.

WARNING

Cancer and Reproductive Harm www.P65Warnings.ca.gov

3. LISTING AND APPROVALS

Refer to section 5 for details and requirements that must be followed.



cULus Listed



VdS Approved



FM Approved



UKCA Approved



CE



MED Approved



LPCB Approved



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

4. TECHNICAL SPECIFICATIONS

4.1 Definitions

Standard Pendent Sprinkler: A sprinkler intended to be oriented with the deflector below the frame so water flows downward through the orifice, striking the deflector and forming an umbrella-shaped spray pattern downward. These sprinklers are marked “SP/RP” (Standard Pendent/Recessed Pendent). When a standard pendent sprinkler is used with a recessed escutcheon, it becomes a recessed pendent sprinkler.

Recessed Sprinkler: A spray sprinkler assembly intended for installation with a concealed piping system. The assembly consists of a sprinkler installed in a decorative adjustable recessed escutcheon that minimizes the protrusion of the sprinkler beyond the ceiling or wall without adversely affecting the sprinkler distribution or sensitivity. Refer to the appropriate technical data page for allowable sprinkler models, temperature ratings, and occupancy classifications.

NOTICE: Do not recess any sprinkler not listed or approved for use with the escutcheon. Refer to Section 5.

Corrosion Resistant Sprinkler: A special service sprinkler with non-corrosive protective coatings, or that is fabricated from non-corrosive material, for use in atmospheres that would normally corrode sprinklers. Sprinklers can be ordered as corrosion resistant sprinklers and can be used with escutcheons when allowed by the approval body.

4.2 Ratings and Physical Characteristics

Parameter	Value
Minimum operating pressure	7 psi (0.5 bar)
Maximum rated pressure	UL: 250 psi (17 bar) FM and CE: 175 psi (12 bar)
Factory tested pressure	500 psi (35 bar)
Thread size	1/2" NPT or 15 mm BSPT
Nominal K-factor	5.6 U.S. (80.6)
Minimum temperature rating (glass bulb)	–65 °F (–55 °C)



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

4.3 Markings and Dimensions

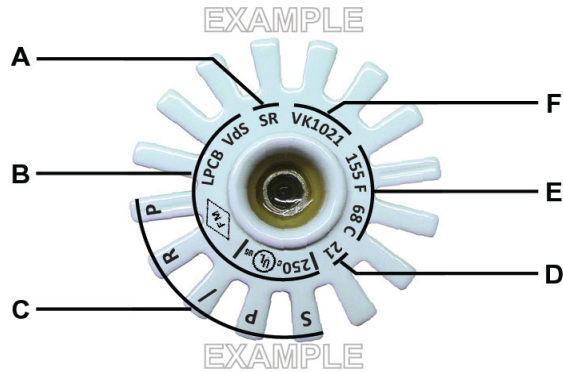


Figure – 1: Markings

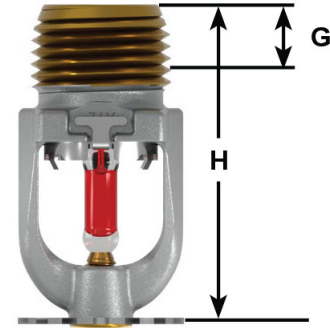


Figure – 2: Dimensions

Ref	Description	Value
A	Response type	SR: Standard Response
B	Listings and Approvals	See sections 3 and 5
C	Sprinkler type	SP/RP: Standard Pendent/Recessed Pendent
D	Manufacture date (year)	See marking
E	Nominal temperature rating	See marking
F	Manufacturers Sprinkler Identification Number (SIN)	VK1021
G	Nominal pipe engagement	7/16" (11 mm)
H	Height	1 15/16" (49 mm)



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

4.4 Materials of Construction

NOTICE: Do not disassemble the sprinkler.

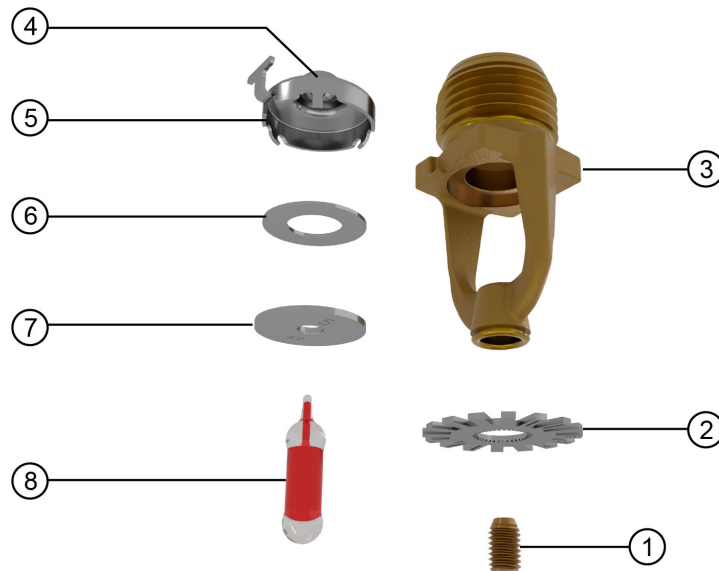


Figure – 3 Sprinkler Components

Ref	Description	Material
1	Compression screw	Brass CW612N, CW508L, UNS–C36000 or UNS–C26000
2	Deflector	Stainless steel UNS S30400
3	Sprinkler body	CW602N, UNS–C84400 or QM brass
4	Pip cap seal	Polytetrafluoroethylene (PTFE)
5	Pip cap shell	Stainless steel UNS–S44400
6	Belleville spring	Nickel alloy
7	Pip cap disc	Stainless steel UNS–S30100
8	Bulb	Glass, nominal 0.20" (5 mm) diameter



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

5. LISTING AND APPROVAL DESIGN REQUIREMENTS

5.1 Listing and Approval Specifications

Sprinkler Base Part Number ¹	Thread Size		Approval Body				
	NPT	BSPT	cULus		FM		
			Approval Specification	Maximum working water pressure	Approval Specification	Maximum working water pressure	
23868	1/2"	—	A1, A2X, A3Y	250 psi (17 bar)	A1, B2X, B3Y	175 psi (12 bar)	
23880	—	15 mm	A1, A2X, A3Y	250 psi (17 bar)	A1, B2X, B3Y	175 psi (12 bar)	
Additional Listings and Approvals Maximum WWP 175 psi (12 bar)							
			CE	LPCB	VdS	UKCA	MED
23868	1/2"	—	A1, B2X, B3Y	A1, A2X, A3Y	A1	A1, A2X, A3Y	A1, A2X, A3Y
23880	—	15 mm	A1, B2X, B3Y	A1, A2X, A3Y	A1	A1, A2X, A3Y	A1, A2X, A3Y
Approval Specification (Temperature Ratings) Key:							
A = 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C) and 286 °F (141 °C)							
B = 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)							
Approval Specification (Finishes) Key:							
1 = Brass, Chrome, White Polyester ^{2,3} , Black Polyester ^{2,3} , and ENT ^{3,4}							
2 = Brass, Chrome, White Polyester ^{2,3} , and Black Polyester ^{2,3}							
3 = ENT ^{3,4}							
Approval Specification (Escutcheons) Key:							
X = Installed with Viking Recessed Escutcheons Models E-1, E-2, E-3, NP-1, NP-2, and NP-3, or Viking Standard Surface Mounted Escutcheons							
Y = Installed with Viking Recessed Escutcheons Models E-1 and NP-1, or Viking Standard Surface Mounted Escutcheons							
1 For complete part number, refer to Viking's current price list.							
2 For White Polyester and Black Polyester, other colors are available upon request and will carry the same Listings and Approvals as the standard colors.							
3 cULus Listed as corrosion resistant.							
4 FM Approved as corrosion resistant.							

5.2 cULus Listing Requirements and Details

The sprinkler is cULus Listed as indicated in Table 5.1 for installation in accordance with the latest edition of NFPA 13 for standard spray sprinklers. This sprinkler is designed for use in light, ordinary, and extra hazard occupancies. Venting is not required.

5.3 FM Approval Requirements and Details

The sprinkler is FM Approved as standard response Non–Storage pendent sprinkler as indicated in the FM Approval Guide. The sprinkler is also approved for use in FM Approved vacuum dry sprinkler systems with a maximum supervisory vacuum pressure of –3 psi (–207 mbar). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling. For specific application and installation requirements, refer to the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2–0).



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

5.4 Additional Approval Requirements and Details

Refer to Table 5.1 for approved configurations allowed by each of the following approvals.

- CE CPR: Standard EN 12259-1:1999 +A3:2006; Declaration of Performance DOP_XT1A.
- LPCB: Standard EN 12259-1:1999 +A3:2006; Certificate Number 096m.
- VdS: Standard EN 12259-1:1999 +A3:2006; Certificate Number G 422004.
- UKCA: Standard EN12259-1:1999 +A3:2006; Declaration of Conformity UKCA DOC_S5048.
- MED: Standard EN 12259-1:1999 +A3:2006; Declaration of Conformity DOC_MED_XT1.

For specific application and installation requirements, refer to the latest applicable governmental codes, ordinances, and standards for the installation location.

5.5 Corrosion Resistant Coatings

The corrosion resistant coatings have passed the standard corrosion tests required by the approving agencies and are listed and approved as indicated in Table 5.1. These tests do not represent all possible corrosive environments. The Electro-less Nickel PTFE (ENT) finish passed the UL 199 thirty day corrosion test and is cULus listed and FM Approved as corrosion resistant. For automatic sprinklers, the ENT coating is applied to all exposed exterior surfaces, including the waterway.

Prior to installation, verify that the coatings are compatible with, or suitable for, the proposed environment. The ENT finish has not been evaluated for environments containing chlorine, such as indoor swimming pools. It is not recommended for these applications.

5.6 Sprinkler Guards and Water Shields

The sprinkler is approved for use with the Model XG Sprinkler Guard and the Model F-1 water shield. Refer to the Guards and Water Shields for XT1 Sprinklers technical data sheet for more information.

5.7 Escutcheons

The sprinkler is approved for use with various styles of Viking escutcheons. Specific installation dimensions apply that must be observed. Refer to the sprinkler's Handling and Installation instructions for more information.

5.8 Available Temperature Ratings

Viking sprinklers are available in several temperature ratings that relate to a specific temperature classification. Applicable installation rules mandate the use and limitations of each temperature classification. In selecting the appropriate temperature classification, the maximum expected ceiling temperature must be known. When there is doubt as to the maximum temperature at the sprinkler location, a maximum-reading thermometer should be used to determine the temperature under conditions that would show the highest readings to be expected. In addition, recognized installation rules may require a higher temperature classification, depending upon sprinkler location, occupancy classification, commodity classification, storage height, and other hazards. In all cases, the maximum expected ceiling temperature dictates the lowest allowable temperature classification. Sprinklers located immediately adjacent to a heat source may require a higher temperature rating.



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

6. ORDERING PROCEDURE

6.1 Sprinkler

1. Choose a sprinkler base part number with the required thread size and listing or approval (refer to section 5):
2. Add the suffix for the desired finish.
3. Add the suffix for the desired temperature rating.

NOTE: For Polyester, insert the desired temperature rating suffix where the dash (–) is shown.

EXAMPLE: 23868MB/W = VK1021 with white polyester finish and 155 °F (68 °C) nominal temperature rating. This sprinkler is to be installed into an area with a maximum ambient temperature of 100 °F (38 °C).

1. Sprinkler Base Part Number		2. Finish		3. Temperature Rating			
See Section 5		Description	Suffix	Nominal Temperature Rating	Bulb Color	Maximum Ambient Ceiling Temperature	Suffix
23868	1/2" NPT	Brass	A	135 °F (57 °C)	Orange	100 °F (38 °C)	A
23880	15 mm BSPT	Chrome	F	155 °F (68 °C)	Red	100 °F (38 °C)	B
		White Polyester	M–/W	175 °F (79 °C)	Yellow	150 °F (65 °C)	D
		Black Polyester	M–/B	200 °F (93 °C)	Green	150 °F (65 °C)	E
		ENT	JN	286 °F (141 °C)	Blue	225 °F (107 °C)	G
				OPEN	—	—	Z



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

6.2 Sprinkler Accessories



Figure – 4: Sprinkler Accessories

Image Reference	Part Number	Description
1)	23559MB	Straight wrench: required for proper installation
2)	23560MB	Recessed socket wrench
3)	01724A	Sprinkler cabinet: holds up to 6 sprinklers
4)	01725A	Sprinkler cabinet: holds up to 12 sprinklers (not shown)
5)	06419A	Model E-1 Slip-on style recessed escutcheon
	07902	Model E-1 Slip-on style recessed escutcheon (stainless steel)
6)	11038	Model E-2 Threaded recessed escutcheon
7)	18347	Model E-3 Threaded recessed escutcheon (large diameter outer cup)
8)	01960A	Large standard flat surface mount escutcheon (steel)
	09488	Large standard flat surface mount escutcheon (stainless steel)
9)	02960A	Small standard flat surface mount escutcheon (steel)
	07526	Small standard flat surface mount escutcheon (stainless steel)
10)	01961B	Large standard raised surface mount escutcheon (brass)



TECHNICAL DATA SHEET

VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)

7. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

bg	Инсталирайте и пуснете продукта в експлоатация само ако следната инструкция е ясно разбрана.	lv	Produkta iemontēšanu un ekspluatācijas sākšanu veikt tikai tad, ja dotā instrukcija ir pilnībā saprasta.
cs	Namontujte a spust'te do provozu produkt pouze tehdy, když jste jasně pochopili tento návod.	lt	Produktą montuokite ir pradėkite eksploatuoti tik tuomet, jei aiškiai suprantate šią instrukciją.
de	Du må kun montere og idriftsætte produktet, hvis du har forstået følgende vejledning til fulde.	mt	Installa u f'ad dem il-prodott biss jekk l-istruzzjonijiet li ġejjin jinftehm u b'mod ċar.
de	Produkt nur einbauen und in Betrieb nehmen, wenn die nachfolgende Anleitung klar verstanden wird.	nl	Product alleen installeren en in gebruik nemen, als de volgende instructies begrepen zijn.
el	Η εγκατάσταση και θέση σε λειτουργία του προϊόντος επιτρέπονται μόνο εάν οι ακόλουθες οδηγίες έχουν γίνει κατανοητές.	no	Ikke installer og ta i bruk produktet uten at følgende anvisninger er tydelig forstått.
en	Do not install and commission the product unless you have clearly understood the instructions below.	pl	Produkt należy montować i uruchamiać tylko wtedy, gdy poniższe instrukcje są w pełni zrozumiałe.
es	Instalar el producto y ponerlo en funcionamiento solo cuando se hayan comprendido claramente las siguientes instrucciones.	pt	Instalar e colocar o produto em funcionamento somente se as instruções a seguir forem claramente compreendidas.
et	Paigaldage toode ja kasutage seda ainult siis, kui saate alljärgnevast juhendist selgelt aru.	ro	Montați produsul și puneți-l în funcțiune numai dacă instrucțiunea următoare este înțeleasă clar.
fi	Tuotteen saa asentaa ja ottaa käyttöön vain, jos jäljempänä oleva ohje ymmärretään selvästi.	ru	Не устанавливайте и не принимайте оборудование в эксплуатацию, если вы четко не поняли инструкции ниже
fr	N'installer et ne mettre en service le produit que si les instructions suivantes ont été clairement comprises.	sk	Namontujte a spustite do prevádzky výrobok iba vtedy, pokiaľ ste jasne pochopili tento návod.
ga	Ná déan an táirge a shuiteail agus a choimisiúnu mura dtuigean tu na teoracha thíos go soileir.	sl	Izdelek vgradite in zaženite samo, če ste dobro razumeli navodila v nadaljevanju.
hr	Ne instalirajte i ne puštajte proizvod u rad ako niste jasno razumjeli donje upute.	sr	Ne instalirajte i ne puštajte proizvod u rad ako niste jasno razumeli uputstva u nastavku.
hu	Csak akkor építse be a terméket és helyezze üzembe, ha a következő útmutatót egyértelműen megértette.	sv	Montera och driftsätt produkten endast om du förstår den efterföljande instruktionen.
is	Settu ekki upp eða taktu vöruna í notkun nema þú hafir skilið greinilega leiðbeiningarnar hér að neðan.	tr	Aşağıdaki talimatları açıkça anlamadan ürünü kurmayın ve devreye almayın.
it	Montare il prodotto e metterlo in funzione solo se si sono comprese appieno le seguenti istruzioni.		

1. PRODUCT IDENTIFICATION

This document covers the following products, hereafter referred to as “sprinkler”:

- VK1021 Standard Response Pendent Sprinkler K5.6 (80.6)
- VK2021 Standard Response Pendent Sprinkler K8.0 (115)
- VK2022 Standard Response Pendent Sprinkler K8.0 (115)
- VK3021 Quick Response Pendent Sprinkler K5.6 (80.6)
- VK3521 Quick Response Pendent Sprinkler K8.0 (115)
- VK3522 Quick Response Pendent Sprinkler K8.0 (115)

2. OTHER APPLICABLE DOCUMENTS

For intended use and relevant conditions for the safe use of the specific sprinkler refer to the appropriate *Technical Data Sheet*.



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

3. TRANSPORT AND HANDLING

⚠ WARNING

A damaged or compromised sprinkler poses the risk of fatal consequences.

Damaged or compromised sprinklers will not operate properly which could lead to loss of life.

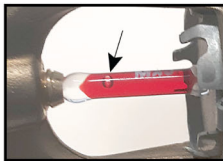
- NEVER use a sprinkler that has been exposed to temperatures exceeding the maximum allowed ambient temperature.
- NEVER use a sprinkler with a loss of liquid from the glass bulb or damage to the fusible element. A small bubble should be visible within the glass bulb; rotate the sprinkler to a horizontal position while observing the bulb to see the bubble.
- NEVER use a sprinkler that has been dropped or damaged.
- ALWAYS Protect the sprinkler from mechanical damage during storage, transport, and handling.
- NEVER use sprinklers that have been painted by anyone other than the manufacturer.
- ALWAYS protect sprinklers from being painted during installation or replacement in accordance with the installation standards.
- NEVER clean sprinklers with anything other than 7 psi or lower compressed air.
- NEVER apply soap, water, ammonia, adhesives, solvents or any other fluids on sprinklers.
- Destroy every damaged or compromised sprinkler.

NOTICE

Protect sprinklers during transport and handling.

- ALWAYS handle the sprinkler with care.
- ALWAYS keep the protective cap on the sprinkler during transport and handling.
- NEVER remove the protective cap until the fire sprinkler system is placed in service and the potential for mechanical damage no longer exists.
- ALWAYS protect the sprinkler from direct sunlight during transport and handling.
- ALWAYS store sprinkler in a cool, dry, protected area.
- ALWAYS use original manufacturer's shipping containers.
- NEVER store a sprinkler loose in a box, bin, bucket, or other type of container.
- ALWAYS keep the sprinkler separated from other sprinklers.
- NEVER allow metal parts to contact the sprinkler operating elements.

NOTE: If the glass bulb included on the sprinkler has been exposed to ultraviolet light, the color inside the bulb may fade. This color change does not affect the operation of the sprinkler.



CORRECT
(Bulb intact, bubble visible)



INCORRECT
(bulb cracked, fluid missing)



CORRECT
(Protective caps in place)



INCORRECT
(Protective caps not in place)



CORRECT
Container



INCORRECT
(Stored loose in a box)



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

4. INSTALLATION

⚠ WARNING

Installation by insufficiently qualified personnel poses the risk of fatal consequences.

- This sprinkler must be installed properly by qualified personnel familiar with safe practices and applicable and recognized design and installation standards issued, for example, by NFPA, FM, VdS, or LPCB, and trained how to properly perform the installation procedures.

⚠ WARNING

Incorrect recessed installation poses the risk of fatal consequences.

- For recessed applications, this sprinkler must be installed according to the dimensions shown in Figure 1.

⚠ CAUTION

Cutting Hazard.

Sprinklers, accessories, cabinets, and packaging can have sharp edges that can cause cuts.

- Wear appropriate personal protective equipment (gloves) while handling product.

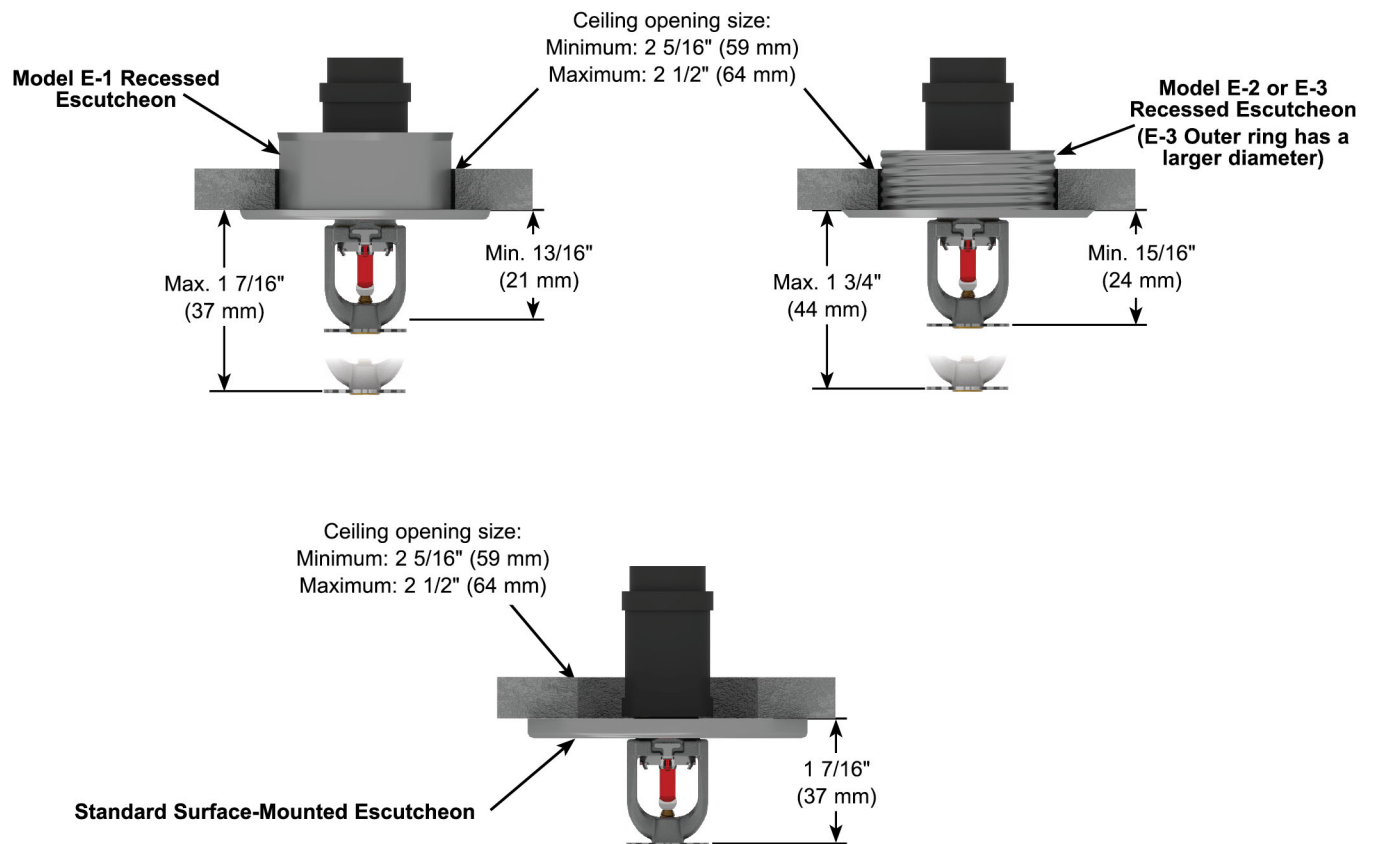


Figure – 1 Installation Dimensions with Viking Escutcheons



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

Optional Guards, Shields, and Escutcheons: If the sprinkler shall be installed together with a guard, shield, or escutcheon refer to the applicable documents for the products used.

1. Install all required piping in the intended installation location.
2. Verify that the sprinkler model/style, K-factor, temperature rating, and response characteristics are appropriate for the intended installation location. See Table 1 and Figure 5.
3. Inspect the sprinkler for damage. Destroy every damaged or compromised sprinkler.
The following are examples in which sprinklers are considered damaged or compromised. Replace the sprinkler in the following cases:
 - Sprinkler with a loss of fluid from the glass bulb or damage to the fusible element.
 - Sprinklers that have been field painted, caulked, or mechanically damaged.
 - Sprinklers showing signs of corrosion.
4. Verify that the sprinkler is protected with the protective cap or clip.
5. Apply a small amount of pipe-joint compound or tape to the external threads of the sprinkler only. Do not allow a build-up of compound inside the sprinkler inlet (Figure 2).

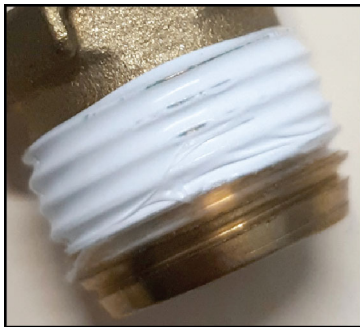


Figure – 2

6. If applicable, Install the escutcheon on the sprinkler threads.
7. **NOTICE: Do not use the deflector to start threading the sprinkler into a fitting. Use ONLY the approved wrench to install the sprinkler. Refer to the sprinkler's *Technical Data Sheet*.**

a) **For recessed sprinkler wrench (Figure 3a):** Carefully slide the wrench sideways around the protective cap and push upwards to engage with the sprinkler wrench flats.

b) **For the standard sprinkler wrench (Figure 3b):** Carefully slide the wrench onto the sprinkler wrench flats.

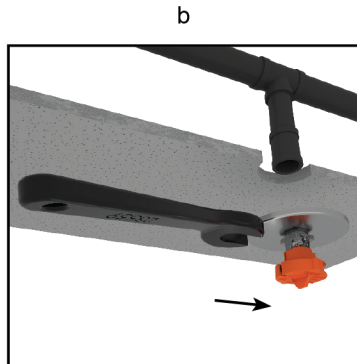
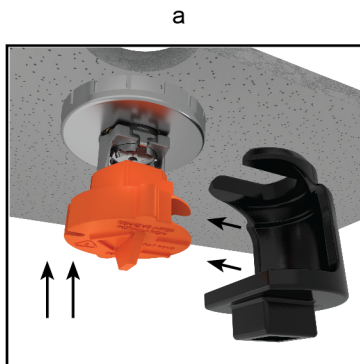


Figure – 3



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

8. **NOTICE: Over-tightening the sprinkler can cause permanent damage. For 1/2" NPT (or 15 mm BSPT) sprinkler, tighten up to a maximum torque of 14 ft-lbs (19 Nm). For 3/4" NPT (or 20 mm BSPT) sprinkler, tighten up to a maximum of 20 ft-lbs (27,1 Nm).**
Tighten the sprinkler as necessary (Figure 4a and 4b). If applicable, install a sprinkler guard and water shield.

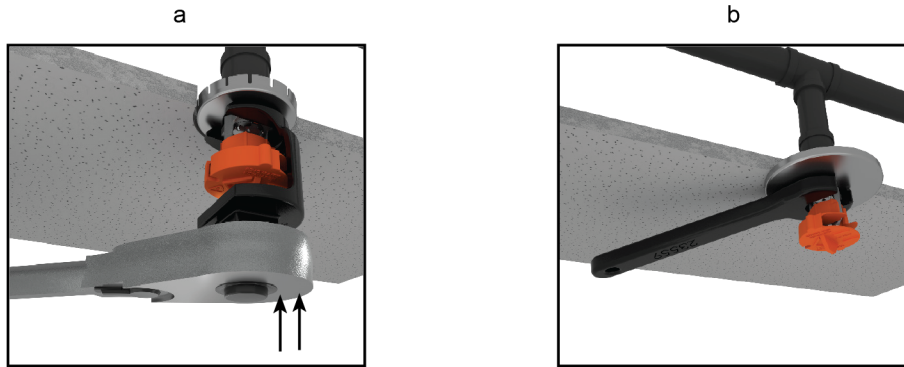


Figure – 4

9. **NOTICE: Sprinkler protective caps/clips must be removed from the sprinkler before placing the system in service. Test the entire sprinkler system.**
Refer to the applicable system documentation, regulations, and standards to ensure compliance.

Table 1: Sprinkler Markings

Ref	Parameter	
A	Response type	
B	Listings and approvals	
C	Sprinkler type	
D	Manufacture date	
E	Nominal temperature rating	
F	Manufacturer's Sprinkler Identification Number (SIN)	

Figure – 5



Handling and Installation Instructions

Model XT-1 Pendent Sprinklers

5. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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



Operation and Maintenance Instructions

Model XT-1 Sprinklers

1. PRODUCT IDENTIFICATION

This document covers the following product, hereafter referred to as “sprinkler” (SR=Standard Response, QR=Quick Response):

- VK1001 SR Upright Sprinkler K5.6 (80.6)
- VK2001 SR Upright Sprinkler K8.0 (115)
- VK2002 SR Upright Sprinkler K8.0 (115)
- VK3001 QR Upright Sprinkler K5.6 (80.6)
- VK3501 QR Upright Sprinkler K8.0 (115)
- VK3502 QR Upright Sprinkler K8.0 (115)
- VK1021 SR Pendent Sprinkler K5.6 (80.6)
- VK2021 SR Pendent Sprinkler K8.0 (115)
- VK2022 SR Pendent Sprinkler K8.0 (115)
- VK3021 QR Pendent Sprinkler K5.6 (80.6)
- VK3521 QR Pendent Sprinkler K8.0 (115)
- VK3522 QR Pendent Sprinkler K8.0 (115)
- VK1181 SR Conventional Sprinkler K5.6 (80.6)
- VK1201 SR Conventional Sprinkler K8.0 (115)
- VK1202 SR Conventional Sprinkler K8.0 (115)
- VK3101 QR Conventional Sprinkler K5.6 (80.6)
- VK3541 QR Conventional Sprinkler K8.0 (115)
- VK3542 QR Conventional Sprinkler K8.0 (115)

WARNING

Cancer and Reproductive Harm www.P65Warning.ca.gov

2. OTHER APPLICABLE DOCUMENTS

For intended use and relevant conditions for the safe use of the specific sprinkler, refer to the appropriate Technical Data Sheet. In case an installed sprinkler needs to be replaced, refer to the appropriate Handling and Installation Instructions for the installation of the new sprinkler.

3. MAINTAINING OPERATIONAL READINESS

Functionality

During fire conditions, the operating element fuses or shatters (depending on the type of sprinkler), releasing the pip cap and sealing assembly. Water flowing through the sprinkler orifice strikes the sprinkler deflector, forming a uniform spray pattern to control or extinguish the fire.

WARNING

This section contains important safety information. Read and follow all information.

Damaged or Compromised Sprinklers

Damaged or compromised sprinklers will not operate properly which could lead to loss of life.

- NEVER clean, paint, or caulk sprinklers.
- NEVER apply soap, water, ammonia, adhesives, solvents or any other fluids on sprinklers.
- NEVER expose sprinklers to temperatures exceeding the maximum allowed ambient ceiling temperature. See the Technical Data Sheet.
- ALWAYS replace a compromised or damaged sprinkler.
- NEVER attempt to repair or reassemble a sprinkler.
- ALWAYS replace operated sprinklers and cover assemblies and sprinklers exposed to corrosive products of combustion.
- Replacement of sprinklers must only be performed following the instructions in section 4.

The following are examples in which sprinklers are considered damaged or compromised. Replace the sprinkler in the following cases:

- Sprinkler with a loss of fluid from the glass bulb or damage to the fusible element.
- Sprinklers or cover plate assemblies that have been field painted, caulked, or mechanically damaged.
- Sprinklers showing signs of extraordinary corrosion.



Obstructions and obstacles

Obstructions and obstacles may compromise sprinkler discharge patterns which are critical for proper fire protection.

- NEVER attach items to sprinklers or hang items from the ceiling in an area protected with sprinklers.
- NEVER install walls in areas protected with sprinklers without having a specialized company verifying the design of the sprinkler system.
- ALWAYS remove obstructions and obstacles to sprinkler spray patterns.

Sprinkler systems that have been subjected to a fire

Sprinkler systems that have been subjected to a fire must be returned to service as soon as possible.

- After an event of fire, the entire sprinkler system must be inspected for damage and repaired as necessary.
- Refer to the minimum requirements of the Authority Having Jurisdiction for replacement of sprinklers.
- Consider the employment of a fire patrol as long as the sprinkler system is out of service.

Inspections and testing

The owner is responsible for having the sprinklers inspected and tested according to standards of the applicable approval body and to the requirements of the Authority Having Jurisdiction to maintain proper operating condition of the system.

- Sprinklers must be inspected on a regular basis for corrosion, mechanical damage, obstructions, paint, etc. Frequency of inspections may vary due to corrosive atmospheres, water supplies, and activity around the sprinkler.

The applicable approval body or Authority Having Jurisdiction may require sprinklers to be replaced after a specified term of service.

- Refer to the standards of the applicable approval body, such as NFPA, FM, VdS, or LPCB, and the requirements of the Authority Having Jurisdiction for detailed inspection, testing and replacements requirements.

Sprinklers removed from the system for testing or for any other purpose must be replaced according to section 4.

4. REMOVAL AND REPLACEMENT

⚠ WARNING

Removal and replacement of sprinklers by insufficiently qualified personnel poses the risk of fatal consequences in case of fire.

- Removal or replacement of sprinklers must be performed by qualified personnel familiar with safe practices and applicable and recognized design and installation standards issued, for example, by NFPA, FM, VdS, or LPCB, and trained how to properly perform the installation procedures.

⚠ WARNING

Removal and replacement of sprinklers will temporarily eliminate the fire protection capabilities of the sprinkler system.

- Consider the employment of a fire patrol in the affected area.
- Prior to proceeding, notify all Authorities Having Jurisdiction.



Operation and Maintenance Instructions

Model XT-1 Sprinklers

WARNING

Re-installation of a removed sprinkler may compromise the operational safety of the sprinkler system.

- NEVER reinstall a removed sprinkler.
 - ALWAYS use new sprinklers for replacement.
1. Select new sprinklers with identical performance characteristics as well as respective accessories such as escutcheons, cover plates, and protective caps. A stocked spare sprinkler cabinet may be provided for this purpose on site.
 2. According to appropriate system description and/or valve instructions, remove the system from service, drain all water, and relieve all pressure on the piping.
 3. Only for flush and concealed style sprinklers: Remove the ceiling ring or cover plate assembly of the old sprinkler by gently unthreading or pulling it off the sprinkler body (depends on the sprinkler model used).
 4. Use the proper sprinkler wrench for the old sprinkler according to its Technical Data Sheet.
 5. Only for flush and concealed style sprinklers, but not for domed concealed sprinklers: Replace the plastic protective cap over the old sprinkler and fit the wrench over the cap.
 6. Use the wrench to remove the old sprinkler by turning it counterclockwise to unthread it from the piping.
 7. Install the new sprinkler by following its Handling and Installation Instructions.
 8. Place the system back in service and secure all valves.
 9. Check for and repair all leaks.

5. DISPOSAL

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

6. CONTACT

The sprinkler and accessories are available through Viking distributors only. Contact your local Viking sales office which can be found on our website:

Americas and Asia: www.vikinggroupinc.com/locations OR Europe, Middle East, Africa (EMEA): www.viking-emea.com/contact

Manufacturer:

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

Importer EU:

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



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

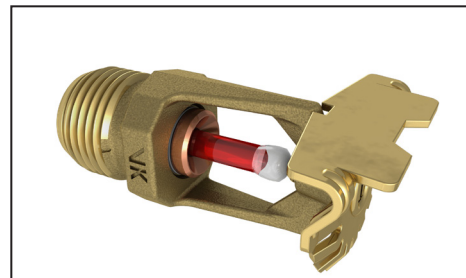
The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

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 www.vikinggroupinc.com

1. DESCRIPTION

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is a small thermosensitive glass bulb spray sprinkler available with various finishes and temperature ratings to meet design requirements. The special Polyester and PTFE coatings can be used in decorative applications where colors are desired. In addition, these coatings have been investigated for installation in corrosive atmospheres and are cULus listed as corrosion resistant as indicated in the Approval Chart. (Note: FM Global has no approval classification for PTFE and Polyester coatings as corrosion resistant.)



Horizontal Sidewall

2. LISTINGS AND APPROVALS

cULus Listed: Category VNIV



FM Approved: Class Series 2000



LPCB Approved: Certificate 096e/06



CE Certified: Standard EN 12259-1, EC-certificate of constancy of performance 0832-CPR-S0021, EC-Certificate of Conformity 0832-CPD-2001



CCCF Approved: Approved by the China Certification Center for Fire Products (CCCF)



MED Certified: Standard EN 12259-1, EC-certificate 0832-MED-1003

NOTE: Other international approval certificates are available upon request.

Refer to Approval Charts and Design Criteria in this data page for Listing and Approval requirements that must be followed.

For Light Hazard Occupancies Only



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

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Rated to 175 psi (12 bar) water working pressure

Factory tested hydrostatically to 500 psi (34.5 bar)

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

* 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)

Overall Length: 2-1/2" (64 mm)

Material Standards:

Frame Casting: Brass UNS-C84400 or QM Brass

Deflector: Copper UNS-C19500

Bulb: Glass, nominal 5 mm diameter

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

Screw: Brass UNS-C36000

Pip Cap and Insert Assembly: Copper UNS-C11000 and Stainless Steel UNS-S30400.

For PTFE Coated Sprinklers: Belleville Spring-Exposed, Screw-Nickel Plated, Pip Cap-PTFE Coated

For Polyester Coated Sprinklers: Belleville Spring-Exposed

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

Order Standard Response Sidewall Sprinklers by first adding the appropriate suffix for the sprinkler finish and then the appropriate suffix for the temperature rating to the sprinkler base part number.

Finish Suffix: Brass = A, Chrome = F, White Polyester = M-/W, Black Polyester = M-/B, and Black PTFE = N, Wax Coated = C, Wax Over Polyester = V-/W

Temperature Suffix: 135 °F / 57 °C = A, 155 °F / 68 °C = B, 175 °F / 79 °C = D, 200 °F / 93 °C = E, 286 °F / 141 °F = G, 360 °F / 182 °C = H

For example, sprinkler VK104 with a 1/2" thread, Brass finish and a 155 °F / 68 °C temperature rating = Part No. 12995AB



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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 www.vikinggroupinc.com

Available Finishes And Temperature Ratings: Refer to Table 1.

Accessories: (Also refer to the Viking website.)

Sprinkler Wrenches:

A. Standard Wrench: Part No. 10896W/B (available since 2000).

B. Wrench for recessed sprinklers with protective shields: Part No. 13655W/B** (available since 2003)

C. Wrench for wax coated sprinklers: Part No. 13577W/B** (available since 2006)

**A 1/2" ratchet is required (not available from Viking).

Sprinkler Cabinets:

A. Six-head capacity: Part No. 01724A (available since 1971)

B. Twelve-head capacity: Part No. 01725A (available since 1971)

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 pip cap and sealing spring assembly. 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 Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is 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.

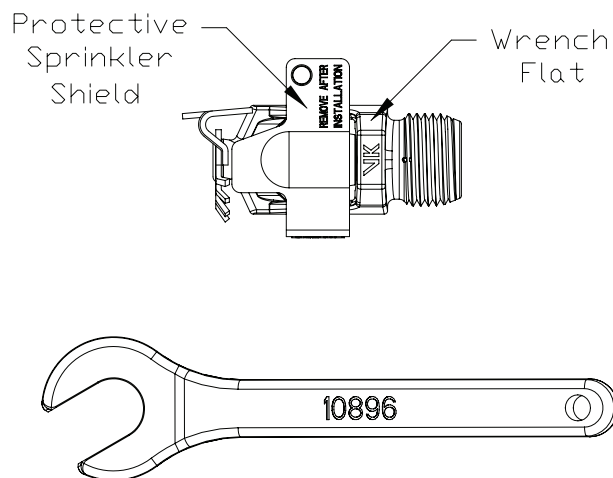


Figure 1:
Standard Sprinkler Wrench 10896W/B

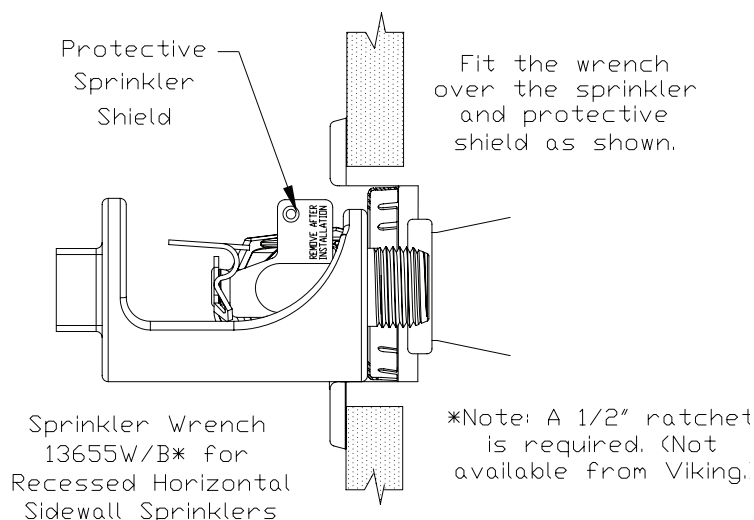


Figure 2:
Wrench 13655W/B for Recessed Horizontal Sidewall Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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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	135 °F (57 °C)	100 °F (38 °C)	Orange
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
Extra High	360 °F (182 °C)	300 °F (149 °C)	Mauve

Sprinkler Finishes: Brass, Chrome, White Polyester, Black Polyester, and Black PTFE

Corrosion-Resistant Coatings³: White Polyester, Black Polyester, and Black PTFE in all temperature ratings. Wax-Coated Brass and Wax over Polyester for sprinklers with the following temperature ratings:

- 155 °F (68 °C) Lt. Brown Wax
- 175 °F (79 °C) Brown Wax
- 200 °F (93 °C) Brown Wax
- 286 °F (141 °C) Dk. Brown Wax⁴

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.

³ The corrosion-resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Chart. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the coatings indicated are applied to the exposed exterior surfaces only. Note that the spring is exposed on sprinklers with Polyester and PTFE coatings. For PTFE coated open sprinklers only, the waterway is coated.

⁴ Wax melting point is 170 °F (76 °C) for 286 °F (141 °C) temperature rated sprinklers.



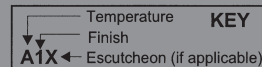
TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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Approval Chart 1 (UL)

Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104
 For Light Hazard Occupancies Only
 Maximum 175 PSI (12 Bar) WWP



Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria.)				
			NPT	BSP	U.S.	metric ²	Inches	mm	cULus ^{4,5}	LPCB	CE		
Horizontal Sidewall													
12995	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X, B2X	A3Z, B2Z	C3Z ⁸	C3U ⁹	--
12988	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X, B2X	A3Z, B2Z	C3Z ⁸	C3U ⁹	--
19777	VK104	HSW	1/2"	--	5.6	80.6	2-1/2	64	--	--	--	--	D4
20230	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	--	--	--	--	D4
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)													
10224	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	B2W, B1W, A1X	A3Z	C3Z ⁸	C3U ⁹	C3Z
10171	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	B2W, B1W, A1X	A3Z	C3Z ⁸	C3U ⁹	C3Z
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C) C - 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), 286 °F (141 °C), and 360 °F (182 °C) D - 155 °F (68 °C)				Approved Finishes 1 - Brass, Chrome, White Polyester ^{6,7} , Black Polyester ^{6,7} , and Black PTFE ⁶ 2 - Wax-Coated Brass and Wax Over Polyester (corrosion resistant) 3 - Brass, Chrome, White Polyester ⁶ , and Black Polyester ⁶ 4 - Chrome					Approved Escutcheons U - Installed with the Viking Microfast Model F-1 Adjustable Escutcheon only. W - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, E-3, or Model G-1 Recessed Escutcheon X - Installed with standard surface-mounted escutcheons, the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, or E-3 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon Z - Installed with standard surface-mounted escutcheons only.				

Footnotes

- ¹ Base part number shown. For complete part number, refer to Viking's current price schedule.
² 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.
³ This table shows the listings and approvals available at the time of printing. Other approvals may be in process.
⁴ Listings and Approvals are limited to Light Hazard Occupancies where allowed by the installation standards being applied.
⁵ Listed by Underwriters Laboratories Inc. for use in the U.S. and Canada.
⁶ cULus Listed as corrosion-resistant.
⁷ Other colors are available on request with the same Listings and Approvals as the standard colors.
⁸ Certified, Standard EN 12259-1, EC-certificate of constancy of performance 0832-CPR-S0021, and EC-Certificate of Conformity 0832-CPD-2001
⁹ MED Certified, Standard EN 12259-1; EC-certificate 0832-MED-1003.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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 www.vikinggroupinc.com

DESIGN CRITERIA - UL

(Also refer to Approval Chart 1 above.)

cULus Listing Requirements:

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is cULus Listed as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for sidewall standard spray sprinklers.

- For use in Light Hazard occupancies only where allowed by the installation standards being applied.
- Locate the deflector 4" to 12" (102 mm to 305 mm) below the ceiling.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13.
- Minimum spacing allowed is 6 ft. (1.8 m).
- Align the top of the deflector parallel with the ceiling.
- Locate no less than 4" (102 mm) from end walls.
- Maximum distance from end walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler installation and obstruction rules contained in NFPA 13 for sidewall standard spray sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 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, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

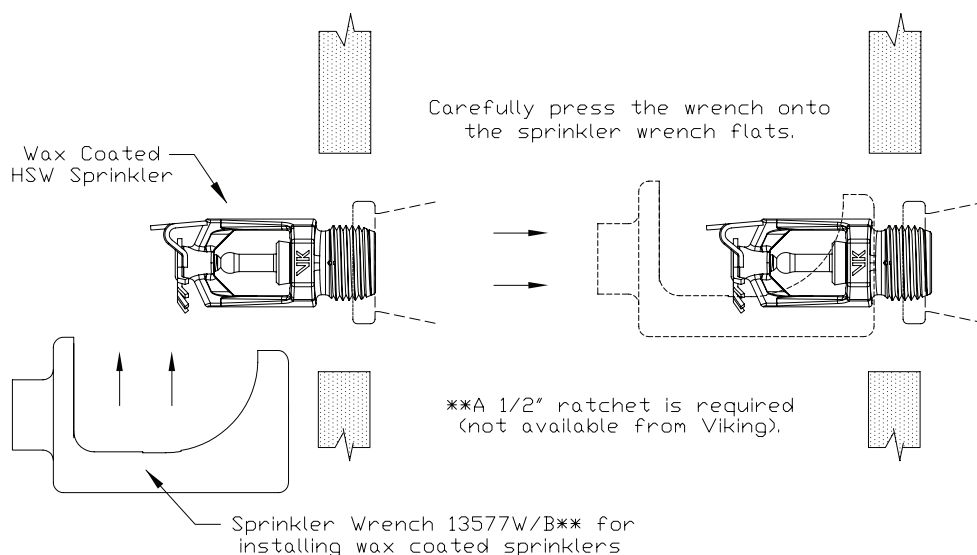


Figure 3: Wrench 13577W/B for Wax Coated Sprinklers



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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 www.vikinggroupinc.com

Approval Chart 2 (FM)

Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104
 Maximum 175 PSI (12 Bar) WWP

	Temperature	KEY
↓	Finish	
←	Escutcheon (if applicable)	
A1X		

Base Part Number ¹	SIN	Sprinkler Style	Thread Size		Nominal K-Factor		Overall Length		FM Approvals ^{3,4} (Refer also to Design Criteria.)
			NPT	BSP	U.S.	metric ²	Inches	mm	
Horizontal Sidewall									
12995	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
12988	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
NOTICE - Product Below - Limited Availability (Contact Local Viking Office)									
10224	VK104	HSW	1/2"	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
10171	VK104	HSW	--	15 mm	5.6	80.6	2-1/2	64	A1Y, B1X
Approved Temperature Ratings A - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), 200 °F (93 °C), and 286 °F (141 °C) B - 135 °F (57 °C), 155 °F (68 °C), 175 °F (79 °C), and 200 °F (93 °C)				Approved Finishes 1 - Brass and Chrome			Approved Escutcheons X - Installed with standard surface-mounted escutcheons, the Viking Microfast® Model F-1 Adjustable Escutcheon, or recessed with the Viking Micromatic® Model E-1, E-2, E-3, or G-1 Recessed Escutcheon Y - Installed with standard surface-mounted escutcheons or the Viking Microfast® Model F-1 Adjustable Escutcheon		

Footnotes

¹ Base part number shown. For complete part number, refer to Viking's current price schedule.

² 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.

³ This table shows the FM Approvals available at the time of printing. Other approvals may be in process.

DESIGN CRITERIA - FM

(Also refer to Approval Chart 2 above.)

FM Approval Requirements:

The Micromatic® Viking Standard Response Horizontal Sidewall Sprinkler VK104 is FM Approved as standard response sidewall **Non-Storage** sprinklers, as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including 2-0) and Technical Advisory Bulletins. FM Global Loss Prevention Data Sheets and Technical Advisory Bulletins contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

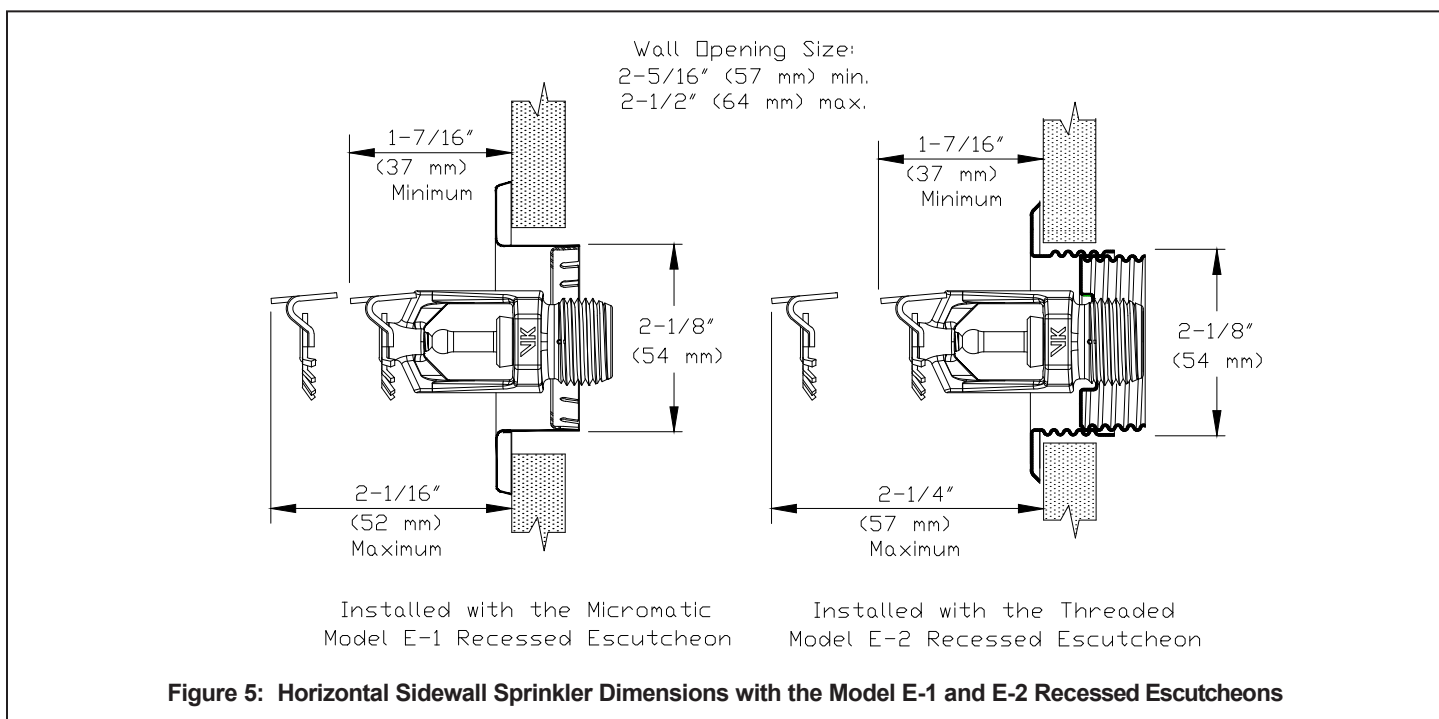
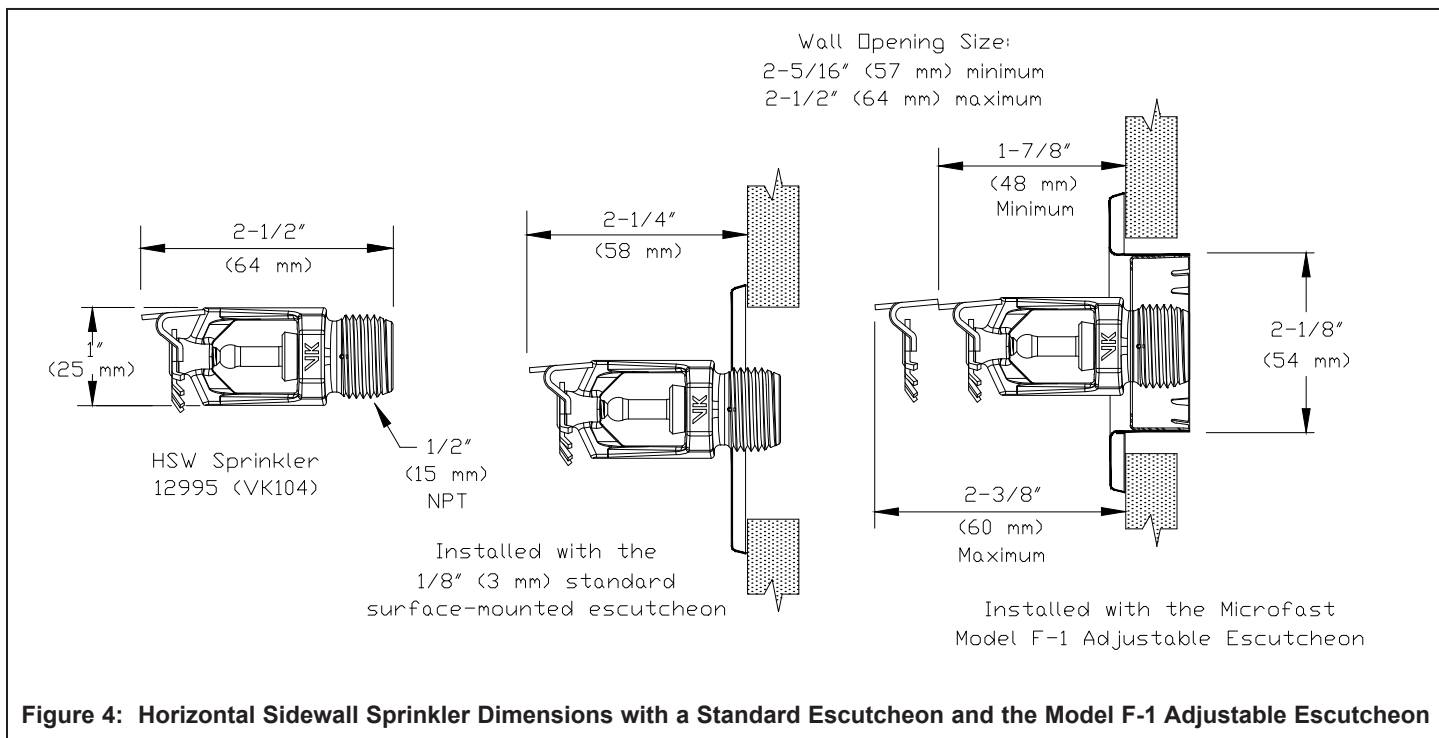
IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 for general care, installation, and maintenance information. Viking sprinklers are to be installed in accordance with the latest edition of Viking technical data, the appropriate standards of NFPA, FM Global, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



TECHNICAL DATA

MICROMATIC® STANDARD RESPONSE HORIZONTAL SIDEWALL SPRINKLER VK104 (K5.6)

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 www.vikinggroupinc.com





TECHNICAL DATA

STANDARD AND QUICK RESPONSE CONCEALED PENDENT SPRINKLER VK4621 (K5.6)

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 www.vikinggroupinc.com

1. DESCRIPTION

Viking Standard and Quick Response Concealed Pendent Sprinkler VK4621 is a small thermosensitive, glass-bulb sprinkler designed for installation on concealed pipe systems where the appearance of a smooth ceiling is desired. The low-profile cover assemblies provide up to 1/2" (13 mm) of vertical adjustment.

Features:

- K5.6 (80.6 metric).
- Quick response glass bulb operating element.
- Integral threaded adapter cup accepts push-on or thread-on cover plates.
- Low-profile, small diameter, removeable cover plates offer almost flush appearance upon installation and allow ease of maintenance.
- Protective cap prevents damage during installation and finishing and keeps errant overspray from coating internal parts.
- Various finishes available to meet design requirements.
- Optional Electroless Nickel PTFE (ENT) coating provides corrosion resistance (see Approval Chart).

2. LISTINGS AND APPROVALS



cULus Listed: Category VNIV



FM Approved: Class 2015

Also approved for use in FM Approved vacuum dry sprinkler systems with a maximum supervisory vacuum pressure of -3 psi (-207mbar)



VdS Approved: Standard EN 12259-1:199 + A3:2006; Certificate Number G 422002



LPCB Approved: Standard EN 12259-1:199 + A3:2006; Certificate Number 096e



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

Refer to the Approval Charts and Design Criteria on for cULus Listing requirements that must be followed.

3. TECHNICAL DATA

Specifications:

Minimum Operating Pressure: 7 psi (0.5 bar)

Maximum Working Pressure: FM - 175 psi (12 bar). UL - 250 psi (17.2 bar)

Factory tested hydrostatically to 500 psi (34.5 bar).

Thread size: 1/2" NPT or BSPT

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

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

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

Material Standards:

Sprinkler body: QM Brass or DZR Brass

Deflector: Phosphor Bronze UNS-C51000

Deflector pins: Stainless steel UNS-S43000

Pip cap: Copper UNS-C11000

Pip cap insert: stainless steel UNS-S30400

Pip cap T-hinge ring: Stainless steel UNS-S31600

Compression screw: UNS-C36000

Belleville spring sealing assembly: Nickel alloy, coated on both sides with PTFE tape

Cover adapter: Cold rolled steel JIS G3141 and carbon steel UNS-G10100 (per JIS G3141)

Shipping cap: High density polyethylene

**TECHNICAL DATA****STANDARD AND
QUICK RESPONSE
CONCEALED PENDENT
SPRINKLER VK4621 (K5.6)**

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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Cover Plate Materials:

Cover plate assembly: Copper UNS-C11000 and brass UNS-C26800 or stainless steel UNS-S30400

Spring: Beryllium nickel

Solder: Eutectic

Ordering Information: Refer to Tables 1 and 2.

4. INSTALLATION

Refer to appropriate NFPA Installation Standards and installation instructions in this document.

5. OPERATION

During fire conditions, when the temperature around the sprinkler approaches its operating temperature, the cover plate detaches, releasing the deflector. Continued heating of the exposed sprinkler causes the heat-sensitive liquid in the glass bulb to expand, causing the glass to shatter, releasing the pip cap and sealing spring assembly. Water flowing through the sprinkler orifice strikes the deflector, forming a uniform spray pattern over a specific area of coverage determined by the water supply pressure at the sprinkler to extinguish or control the fire.

6. INSPECTIONS, TESTS AND MAINTENANCE

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

7. AVAILABILITY

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

8. GUARANTEE

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



TECHNICAL DATA

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TABLE 1: ORDERING INFORMATION

Ordering Instructions:

- (1) Select a Sprinkler Base Part Number
- (2) Add the suffix for the desired Finish
- (3) Add the suffix for the desired Sprinkler Temperature Rating
- (4) Order a cover plate (refer to Table 2)

Example:

24682AE = 200 °F (93 °C) Temperature Rated Sprinkler with a standard Brass finish.

1: Sprinkler Base Part Numbers			2: Available Finishes		3: Available Temperature Ratings				
	Size		Description	Suffix ¹	Sprinkler Temperature Classification	Nominal Rating	Bulb Color	Max. Ambient Ceiling Temperature ²	Suffix
	NPT	BSPT							
24682	1/2"	--	Brass	A	Ordinary	155 °F (68 °C)	Red	100 °F (38 °C)	B
22962	--	1/2"	ENT ^{3,4,6}	JN	Intermediate	200 °F (93 °C)	Green	150 °F (65 °C)	E

Accessories

Part number	Description
23143 ⁵	Installation wrench ^{5,8}
14412	Concealed cover plate installer tool (available since 2007) ⁷
14867	Large concealed cover plate installer tool (available since 2007) ⁷
01731A	Sprinkler cabinet; holds up to 6 sprinklers (available since 1971)

Footnotes

1. Where a dash (-) is shown in the Finish suffix designation, insert the desired Temperature Rating suffix. See example above.
2. Based on NFPA 13, NFPA 13R, and NFPA 13D. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.
3. UL Listed as corrosion resistant.
4. The corrosion resistant coatings have passed the standard corrosion test required by the approving agencies indicated in the Approval Chart. These tests cannot and do not represent all possible corrosive environments. Prior to installation, verify through the end-user that the coatings are compatible with or suitable for the proposed environment. For automatic sprinklers, the ENT coating is applied to all exposed exterior surfaces, including the waterway.
5. Requires a 1/2" ratchet which is not available from Viking.
6. FM Approved as a decorative finish.
7. The installer tool is for push-on style cover plates only.
8. The installation wrench is intended to be used for a maximum of 500 sprinkler installations at a maximum torque of 14 ft-lbs (19 Nm).



TECHNICAL DATA

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TABLE 2: COVER PLATE ORDERING INFORMATION

Instructions:

- (1) Select a Cover Plate Base Part Number
- (2) Add the suffix for the desired Finish
- (3) Add the suffix for the required Cover Plate Nominal Rating.

Example:

23190MC/W = 165 °F (74 °C) Temperature Rated 2-3/4" (70 mm) diameter Round Cover Plate with a Painted White finish.

1: Select a Cover Plate Base Part Number ³						2: Select a Finish	
Thread-On Style			Push-On Style			Description	Suffix ⁵
Base Part Number	Size Inch (mm)	Type	Base Part Number	Size Inch (mm)	Type		
23190	2-3/4 (70)	Round	23447	2-3/4 (70)	Round	Polished Chrome	F
23174	3-5/16 (84)	Round	23463	3-5/16 (84)	Round	Brushed Chrome	F-/B
23179	3-5/16 (84)	Square	23482	3-5/16 (84)	Square	Bright Brass	B
23193 ⁴	2-3/4 (70)	Stainless Steel Round	23455	2-3/4 (70)	Stainless Steel Round	Antique Brass	B-/A
						Brushed Brass	B-/B
23183 ⁴	3-5/16 (84)	Stainless Steel Round	23473	3-5/16 (84)	Stainless Steel Round	Brushed Copper	E-/B
						Painted White	M-/W
23174-/CR	3-5/16 (84)	Clean Room	23463-/CR	3-5/16 (84)	Clean Room	Painted Ivory	M-/I
23183-/CR	3-5/16 (84)	Stainless Steel Round	23473-/CR	3-5/16 (84)	Stainless Steel Round	Painted Black	M-/B
		Clean Room			Clean Room		

3: Temperature Rating Matrix^{1,2}

Cover Plate Nominal Rating (Required)	Temperature Classification	Sprinkler Nominal Rating	Sprinkler Maximum Ambient Ceiling Temperature ²	Suffix
139 °F (59 °C)	Ordinary	155 °F (68 °C)	100 °F (38 °C)	A
165 °F (74 °C)	Intermediate	200 °F (93 °C)	150 °F (65 °C)	C

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.
3. Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.
4. Stainless Steel versions are not available with any finishes or paint.
5. Where a dash (-) is shown in the Finish suffix designation, insert the desired Temperature Rating suffix. See example above.

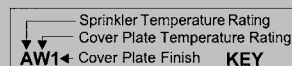


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Approval Chart



Concealed Pendent Sprinkler VK4621

1/2" NPT or 1/2" BSPT, Nominal K-factor 5.6 U.S. (80.6 metric²)

Listings and Approvals³ (Refer also to Design Criteria)

Sprinkler Base Part No. ¹	cULus ⁴	FM	VdS	LPCB
	Maximum Water Working Pressure 250 psi (17.2 bar)	Maximum Water Working Pressure 175 psi (12 bar)	Maximum Water Working Pressure 175 psi (12 bar)	Maximum Water Working Pressure 175 psi (12 bar)
Standard Response Applications				
24682A	--	AV1, BX1, AS2, BT2	AV1, BX1	AV1, BX1
24682JN ^{7,8}	--	AV1, BX1, AS2, BT2	--	--
22962A	--	AV1, BX1, AS2, BT2	AV1, BX1	AV1, BX1
22962JN ^{7,8}	--	AV1, BX1, AS2, BT2	--	--
Quick Response Applications				
24682A	AV1, BX1, AS2, BT2, AY3, BZ3	--	--	--
24682JN ^{7,8}	AV1, BX1, AS2, BT2, AY3, BZ3	--	--	--
22962A	AV1, BX1, AS2, BT2, AY3, BZ3	--	--	--
22962JN ^{7,8}	AV1, BX1, AS2, BT2, AY3, BZ3	--	--	--
Approved Sprinkler Temperature Rating Key	Approved Cover Plate Assembly Finishes Key		Approved Cover Plate Finishes Key	
A = 155 °F (68 °C) B = 200 °F (93 °C)	S = 139 °F (59 °C) Stainless Steel covers (23193, 23455, 23183, and 23473) T = 165 °F (74 °C) Stainless Steel covers (23193, 23455, 23183, and 23473) V = 139 °F (59 °C) covers (23190, 23447, 23174, 23463, 23179, and 23482) X = 165 °F (74 °C) covers (23190, 23447, 23174, and 23463) Y = 139 °F (59 °C) Clean Room Covers (23174A-/CR and 23463A-/CR) or 139 °F (59 °C) Stainless Steel Clean Room Covers (23183A-/CR and 23473A-/CR) Z = 165 °F (74 °C) Clean Room Cover (23174C-/CR and 23463C-/CR)		1 = Polished Chrome, Brushed Chrome, Bright Brass, Antique Brass, Brushed Brass, Brushed Copper, Painted ⁶ White, Painted ⁶ Ivory, or Painted ⁶ Black 2 = Stainless Steel 3 = Polished Chrome, Painted White, Painted Ivory, or Painted Black	

Footnotes

- Part number shown is the base part number. For complete part number, refer to current Viking price list schedule.
- 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.
- This chart shows the listings and approvals available at the time of printing. Other approvals may be in process. Check with the manufacturer for any additional approvals.
- Listed by Underwriter's Laboratories for use in the U.S. and Canada.
- The 139 °F (59 °C) covers have an orange label. The 165 °F (74 °C) covers have a white label.
- Other paint colors are available on request with the same listings as the standard paint colors. Listings and approvals apply for any paint manufacturer. Contact Viking for additional information.
- cULus Listed as corrosion resistant.
- FM Approved as a decorative finish.

NOTE: Custom colors are indicated on a label inside the cover assembly. Refer to Figure 2.



TECHNICAL DATA

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DESIGN CRITERIA - UL

(Also refer to Approval Chart)

cULus Listing Requirements:

Concealed Pendent Sprinkler VK4621 is cULus Listed as quick response for installation in accordance with the latest edition of NFPA 13 for standard coverage pendent spray sprinklers as indicated below.

- For hazard occupancies up to and including Ordinary Hazard, Group II.
- Protection areas and maximum spacing shall be in accordance with the tables provided in NFPA 13. Maximum spacing allowed is 15 ft. (4.6 m).
- Minimum spacing allowed is 6 ft. (1.8 m) unless baffles are installed in accordance with NFPA 13.
- Minimum distance from walls is 4 in. (102 mm).
- Maximum distance from walls shall be no more than one-half of the allowable distance between sprinklers. The distance shall be measured perpendicular to the wall.
- The sprinkler obstruction rules contained in NFPA 13 for standard coverage pendent spray sprinklers must be followed.

NOTE: Concealed sprinklers must be installed in neutral or negative pressure plenums only.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 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, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.

DESIGN CRITERIA - FM

(Also refer to Approval Chart)

FM Approval Requirements:

Viking Concealed Pendent Sprinkler VK4621 is FM Approved as a standard response **Non-Storage** concealed pendent sprinkler as indicated in the FM Approval Guide. For specific application and installation requirements, reference the latest applicable FM Loss Prevention Data Sheets (including Data Sheet 2-0). FM Global Loss Prevention Data Sheets contain guidelines relating to, but not limited to: minimum water supply requirements, hydraulic design, ceiling slope and obstructions, minimum and maximum allowable spacing, and deflector distance below the ceiling.

NOTE: The FM installation guidelines may differ from cULus and/or NFPA criteria.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to Form No. F_080614 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, LPCB, APSAD, VdS or other similar organizations, and also with the provisions of governmental codes, ordinances, and standards, whenever applicable.



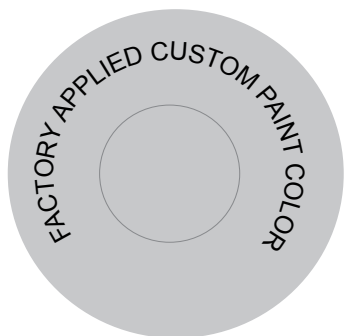
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Figure 1: Installation Wrench



All custom color painted cover plates will have an identifying label affixed to the inside of the cover that indicates the custom color and will have a representative sample (a paint dot) of the paint on the label.

Figure 2: Identification of Custom Paint

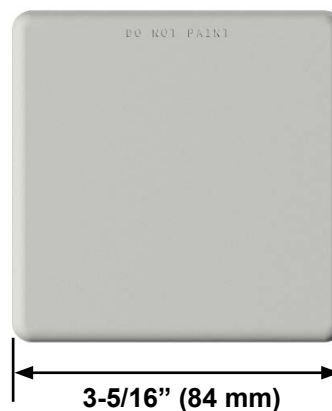


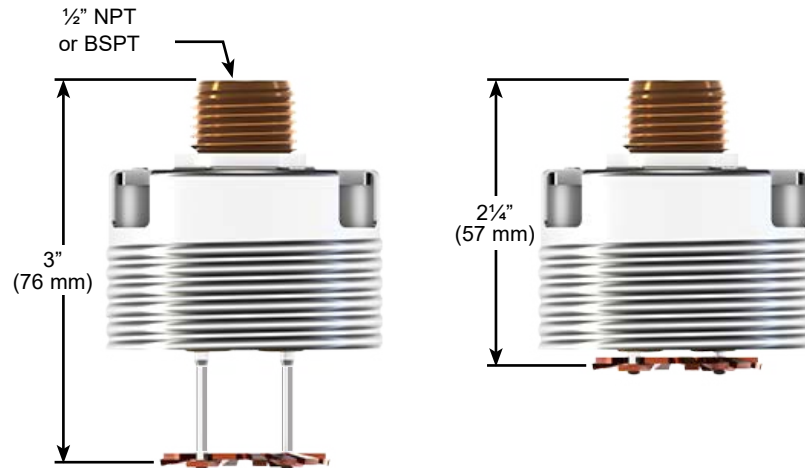
Figure 3: Square Cover Assembly



TECHNICAL DATA

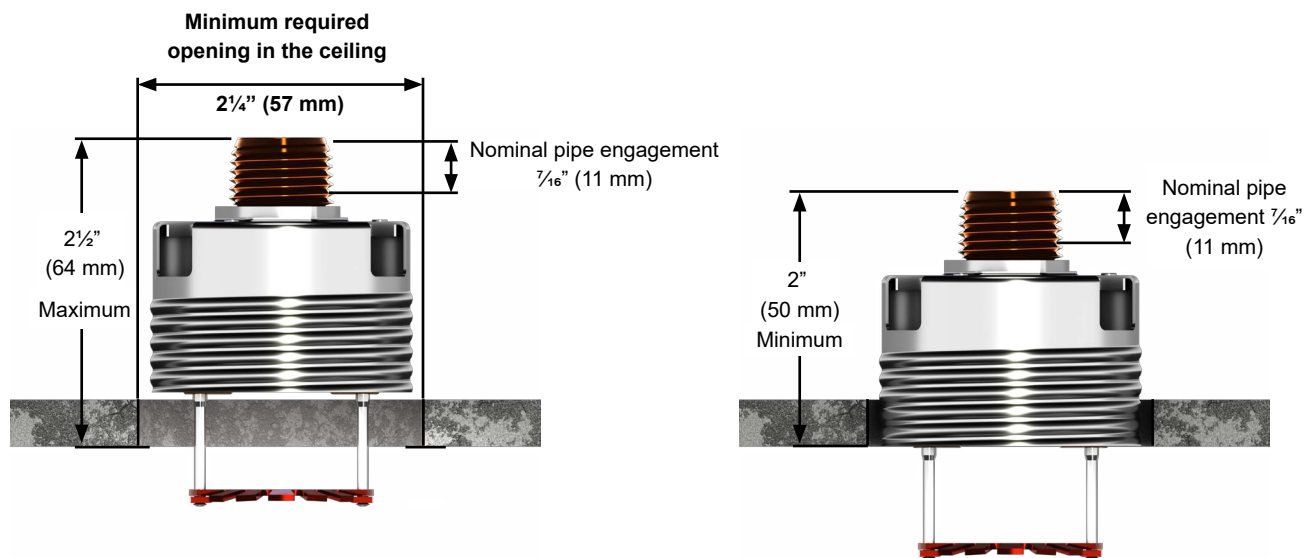
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NOTE: Image is representative only. Actual product may vary.

Figure 4: Sprinkler Dimensions



NOTE: Image is representative only. Actual product may vary.

Figure 5: Sprinkler Installation Dimensions



TECHNICAL DATA

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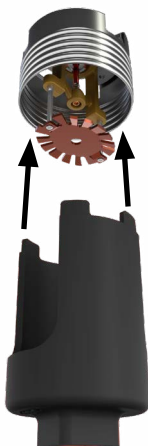


NOTICE: USE ONLY the designated sprinkler wrenches shown in this document. Permanent damage to the sprinkler assembly can occur if the proper wrench is not used. Other sprinkler wrenches available from Viking may fit into the sprinkler adapter cup; however, only the wrenches shown here are designed to properly install this sprinkler.

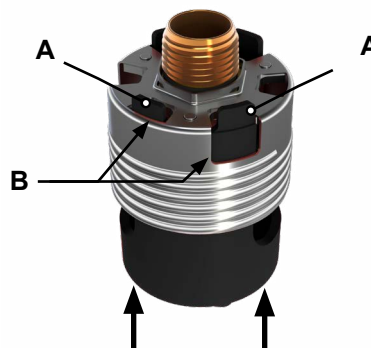
Step 1:
Remove the protective cap.



Step 2:
Insert the wrench into the sprinkler adapter.



Step 3:
Rotate the wrench slightly in either direction until the tines on the wrench (A) line up with the vent openings (B) on the adapter cup and lock into place. NOTE: A leak tight seal must be achieved. Turn the sprinkler clockwise 1 to 1-½ turns past finger-tight.



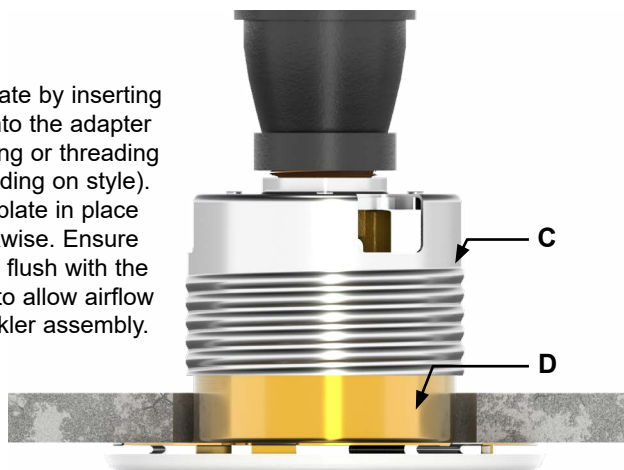
NOTE: Image is representative only. Actual product may vary.

Figure 6: Using the Sprinkler Wrench



Minimum

Install the cover plate by inserting the adapter (D) into the adapter cup (C) and pushing or threading into place (depending on style). Snug the cover plate in place by rotating clockwise. Ensure the cover plate is flush with the ceiling as shown to allow airflow through the sprinkler assembly.



Maximum

NOTE: Image is representative only. Actual product may vary.

Figure 7: Installing the Cover Plate



BULLETIN

CARE AND HANDLING
OF SPRINKLERS

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SPRINKLERS ARE FRAGILE - HANDLE WITH CARE!

General Handling and Storage:

- Store sprinklers in a cool, dry place.
- Protect sprinklers during storage, transport, handling, and after installation.
- Use the original shipping containers. DO NOT place sprinklers loose in boxes, bins, or buckets.
- Keep sprinklers separated at all times. DO NOT allow metal parts to contact sprinkler operating elements.

For Pre-Assembled Drops:

- Protect sprinklers during handling and after installation.
- For recessed assemblies, use the protective sprinkler cap (Viking Part Number 10364).

Sprinklers with Protective Shields or Caps:

- DO NOT remove shields or caps until after sprinkler installation and there no longer is potential for mechanical damage to the sprinkler operating elements.
- **Sprinkler shields or caps MUST be removed BEFORE placing the system in service!**
- Remove the sprinkler shield by carefully pulling it apart where it is snapped together.
- Remove the cap by turning it slightly and pulling it off the sprinkler.

Sprinkler Installation:

- DO NOT use the sprinkler deflector or operating element to start or thread the sprinkler into a fitting.
- **Use only the designated sprinkler head wrench!** Refer to the current sprinkler technical data page to determine the correct wrench for the model of sprinkler used.
- DO NOT install sprinklers onto piping at the floor level.
- Install sprinklers after the piping is in place to prevent mechanical damage.
- DO NOT allow impacts such as hammer blows directly to sprinklers or to fittings, pipe, or couplings in close proximity to sprinklers. Sprinklers can be damaged from direct or indirect impacts.
- DO NOT attempt to remove drywall, paint, etc., from sprinklers.
- **Take care not to over-tighten the sprinkler and/or damage its operating parts!**

Maximum Torque:

1/2" NPT: 14 ft-lbs. (19.0 N-m)

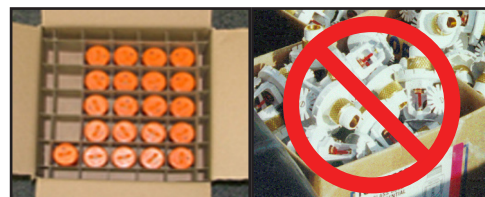
3/4" NPT: 20 ft-lbs. (27.1 N-m)

1" NPT: 30 ft-lbs. (40.7 N-m)



CORRECT
(Original container used)

INCORRECT
(Placed loose in box)



CORRECT
(Protected with caps)

INCORRECT
(Protective caps not used)



CORRECT
(Piping is in place at the ceiling)

INCORRECT
(Sprinkler at floor level)



CORRECT
(Special installation wrenches)

INCORRECT
(Designated wrench not used)



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

! WARNING

Any sprinkler with a loss of liquid from the glass bulb or damage to the fusible element should be destroyed. Never install sprinklers that have been dropped, damaged, or exposed to temperatures exceeding the maximum ambient temperature allowed. Sprinklers that have been painted in the field must be replaced per NFPA 13. Protect sprinklers from paint and paint overspray in accordance with the installation standards. Do not clean sprinklers with soap and water, ammonia, or any other cleaning fluid. Do not use adhesives or solvents on sprinklers or their operating elements.

Refer to the appropriate technical data page and NFPA standards for complete care, handling, installation, and maintenance instructions. For additional product and system information Viking data pages and installation instructions are available on the Viking Web site at www.vikinggroupinc.com.



BULLETIN

CARE AND HANDLING
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PROTECTIVE SPRINKLER SHIELDS AND CAPS

General Handling and Storage:

Many Viking sprinklers are available with a plastic protective cap or shield temporarily covering the operating elements. The snap-on shields and caps are factory installed and are intended to help protect the operating elements from mechanical damage during shipping, storage, and installation. NOTE: It is still necessary to follow the care and handling instructions on the appropriate sprinkler technical data sheets* when installing sprinklers with bulb shields or caps.

WHEN TO REMOVE THE SHIELDS AND CAPS:

NOTE: SHIELDS AND CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!

Remove the shield or cap from the sprinkler only after checking all of the following:

- The sprinkler has been installed*.
- The wall or ceiling finish work is completed where the sprinkler is installed and there no longer is a potential for mechanical damage to the sprinkler operating elements.

SHIELDS AND CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!

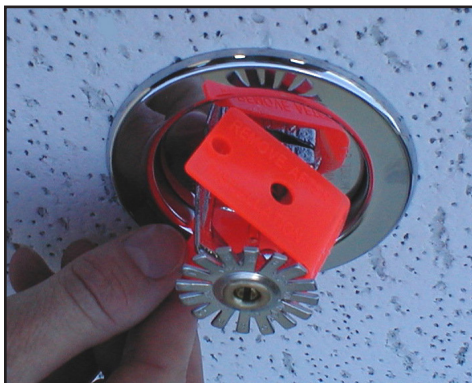


Figure 1: Sprinkler shield being removed from a pendent sprinkler.



Figure 2: Sprinkler cap being removed from a pendent sprinkler.



Figure 3: Sprinkler cap being removed from an upright sprinkler.

HOW TO REMOVE SHIELDS AND CAPS:

No tools are necessary to remove the shields or caps from sprinklers. DO NOT use any sharp objects to remove them! **Take care not to cause mechanical damage to sprinklers when removing the shields or caps.** When removing caps from fusible element sprinklers, use care to prevent dislodging ejector springs or damaging fusible elements. NOTE: Squeezing the sprinkler cap excessively could damage sprinkler fusible elements.

- To remove the shield, simply pull the ends of the shield apart where it is snapped together. Refer to Figure 1.
- To remove the cap, turn it slightly and pull it off the sprinkler. Refer to Figures 2 and 3.

NOTICE

Refer to the current sprinkler technical data page to determine the correct sprinkler wrench for the model of sprinkler used.



Never install sprinklers that have been dropped, damaged, or exposed to temperatures in excess of the maximum ambient temperature allowed.

* Refer to the appropriate current technical data pages for complete care, handling, and installation instructions. Data pages are included with each shipment from Viking or Viking distributors. They can also be found on the Web site at www.vikinggroupinc.com.



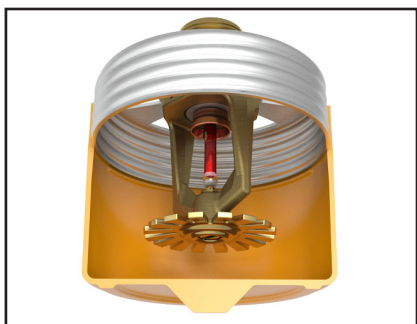
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CONCEALED COVER ASSEMBLIES ARE FRAGILE!
TO ASSURE SATISFACTORY PERFORMANCE OF THE PRODUCT, HANDLE WITH CARE.



Concealed Sprinkler and Adapter
 Assembly with Protective Cap



Concealed Sprinkler and Adapter
 Assembly (Protective Cap Removed)

Cover Plate Assembly
 (Pendent Cover 12381 shown)



GENERAL HANDLING AND STORAGE INSTRUCTIONS:

- Do not store in temperatures exceeding 100 °F (38 °C). Avoid direct sunlight and confined areas subject to heat.
- Protect sprinklers and cover assemblies during storage, transport, handling, and after installation.
 - Use original shipping containers.
 - Do not place sprinklers or cover assemblies loose in boxes, bins, or buckets.
- Keep the sprinkler bodies covered with the protective sprinkler cap any time the sprinklers are shipped or handled, during testing of the system, and while ceiling finish work is being completed.
- Use only the designated Viking recessed sprinkler wrench (refer to the appropriate sprinkler data page) to install these sprinklers. **NOTE:** The protective cap is temporarily removed during installation and then placed back on the sprinkler for protection until finish work is completed.
- Do not over-tighten the sprinklers into fittings during installation.
- Do not use the sprinkler deflector to start or thread the sprinklers into fittings during installation.
- Do not attempt to remove drywall, paint, etc., from the sprinklers.
- Remove the plastic protective cap from the sprinkler before attaching the cover plate assembly. **PROTECTIVE CAPS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!**

Refer to the appropriate current technical data pages for complete care, handling, and installation instructions. Data pages are included with each shipment from Viking or Viking distributors. They can also be found on the Web site at www.vikinggroupinc.com.



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

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USE THE FOLLOWING PRECAUTIONS WHEN HANDLING WAX-COATED SPRINKLERS

Many of Viking's sprinklers are available with factory-applied wax coating for corrosion resistance. These sprinklers **MUST** receive appropriate care and handling to avoid damaging the wax coating and to assure satisfactory performance of the product.

General Handling and Storage of Wax-Coated Sprinklers:

- Store the sprinklers in a cool, dry place (in temperatures below the maximum ambient temperature allowed for the sprinkler temperature rating. Refer to Table 1 below.)
- Store containers of wax-coated sprinklers separate from other sprinklers.
- Protect the sprinklers during storage, transport, handling, and after installation.
- Use original shipping containers.
- Do not place sprinklers in loose boxes, bins, or buckets.

Installation of Wax-Coated Sprinklers:

Use only the special sprinkler head wrench designed for installing wax-coated Viking sprinklers (any other wrench may damage the unit).

- Take care not to crack the wax coating on the units.
- For touching up the wax coating after installation, wax is available from Viking in bar form. Refer to Table 1 below. The coating **MUST** be repaired after sprinkler installation to protect the corrosion-resistant properties of the sprinkler.
- Use care when locating sprinklers near fixtures that can generate heat. Do not install sprinklers where they would be exposed to temperatures exceeding the maximum recommended ambient temperature for the temperature rating used.
- Inspect the coated sprinklers frequently soon after installation to verify the integrity of the corrosion resistant coating. Thereafter, inspect representative samples of the coated sprinklers in accordance with NFPA 25. Close up visual inspections are necessary to determine whether the sprinklers are being affected by corrosive conditions.

TABLE 1

Sprinkler Temperature Rating (Fusing Point)	Wax Part Number	Wax Melting Point	Maximum Ambient Ceiling Temperature ¹	Wax Color
155 °F (68 °C) / 165 °F (74 °C)	02568A	148 °F (64 °C)	100 °F (38 °C)	Light Brown
175 °F (79 °C)	04146A	161 °F (71 °C)	150 °F (65 °C)	Brown
200 °F (93 °C)	04146A	161 °F (71 °C)	150 °F (65 °C)	Brown
220 °F (104 °C)	02569A	170 °F (76 °C)	150 °F (65 °C)	Dark Brown
286 °F (141 °C)	02569A	170 °F (76 °C)	150 °F (65 °C)	Dark Brown

¹ 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.



WARNING Never install sprinklers that have been dropped, damaged, or exposed to temperatures in excess of the maximum ambient temperature allowed.

Refer to the appropriate current technical data pages for complete care, handling, and installation instructions. Data pages are included with each shipment from Viking or Viking distributors. They can also be found on the Web site at www.vikinggroupinc.com.



TECHNICAL DATA

SPRINKLER OVERVIEW

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1. DESCRIPTION

Viking fire sprinklers consist of a threaded frame with a specific waterway or orifice size and a deflector for distributing water in a specified pattern. A closed or sealed sprinkler refers to a complete assembly, including the thermosensitive operating element. An open sprinkler does not use an operating element and is open at all times. The distribution of water is intended to extinguish a fire or to control its spread.

Viking sprinklers are available in several models and styles. Refer to specific sprinkler technical data pages for available styles, finishes, temperature ratings, thread sizes, and nominal K-Factors for the particular model selected.

2. LISTINGS AND APPROVALS

Refer to the Approval Charts on the appropriate sprinkler technical data page(s) and/or approval agency listings.



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

3. TECHNICAL DATA

Pressure Ratings:

Maximum allowable water working pressure is 175 psig (12 Bar) unless rated and specified for high water working pressure [250 psig (17.2 bar)].

Sprinkler Identification:

Viking sprinklers are identified and marked with the word "Viking", the sprinkler identification number (SIN) consisting of "VK" plus a three digit number*, the model letter, and the year of manufacture.

Available Finishes:

Viking sprinklers are available in several decorative finishes. Some models are available with corrosion-resistant coatings or are fabricated from non-corrosive material. Refer to the sprinkler technical data page for additional information.

Available Temperature Ratings:

Viking sprinklers are available in several temperature ratings that relate to a specific temperature classification. Applicable installation rules mandate the use and limitations of each temperature classification. In selecting the appropriate temperature classification, the maximum expected ceiling temperature must be known. When there is doubt as to the maximum temperature at the sprinkler location, a maximum-reading thermometer should be used to determine the temperature under conditions that would show the highest readings to be expected. In addition, recognized installation rules may require a higher temperature classification, depending upon sprinkler location, occupancy classification, commodity classification, storage height, and other hazards. In all cases, the maximum expected ceiling temperature dictates the lowest allowable temperature classification. Sprinklers located immediately adjacent to a heat source may require a higher temperature rating.

K-Factors:

Viking sprinklers are available in several orifice sizes with related K-Factors. The orifice is a tapered waterway and, therefore, the K-Factor given is nominal. Nominal U.S. K-Factors are provided in accordance with the 1999 edition of NFPA 13, Section 3-2.3. Refer to the specific data page for appropriate K-Factor information.

Available Styles:

Viking sprinklers are available for installation in several positions as indicated by a stamping on the deflector. The deflector style dictates the appropriate installation position of the sprinkler; it breaks the solid stream of water issuing from the sprinkler orifice to form a specific spray pattern. The following list indicates the various styles and identification of Viking sprinklers.

UPRIGHT SPRINKLER: A sprinkler intended to be installed with the deflector above the frame so water flows upward through the orifice, striking the deflector and forming an umbrella-shaped spray pattern downward. Marked "SSU" (Standard Sprinkler Upright) or "UPRIGHT" on the deflector.

PENDENT SPRINKLER: A sprinkler intended to be oriented with the deflector below the frame so water flows downward through the orifice, striking the deflector and forming an umbrella-shaped spray pattern downward. Marked "SSP" (Standard Sprinkler Pendent) or "PENDENT" on the deflector.

CONVENTIONAL SPRINKLER: An "old style" sprinkler intended to be installed with the deflector in either the upright or pendent position. The deflector provides a spherical type pattern with 40 to 60 percent of the water initially directed downward and a proportion directed upward. Must be installed in accordance with installation rules for conventional or old style sprinklers. DO NOT USE AS A REPLACEMENT FOR STANDARD SPRAY SPRINKLERS. Marked "C U/P" (Conventional Upright/Pendent) on the deflector.

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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VERTICAL SIDEWALL (VSW) SPRINKLER: A sprinkler intended for installation near the wall and ceiling. The deflector provides a water spray pattern outward in a quarter-spherical pattern and can be installed in the upright or pendent position with the flow arrow in the direction of discharge. Marked "SIDEWALL" on the deflector with an arrow and the word "FLOW". (Note: Some vertical sidewall sprinklers can only be installed in the upright or pendent position—in this case, the sprinkler will also be marked "UPRIGHT" or "PENDENT".)

HORIZONTAL SIDEWALL (HSW) SPRINKLER: A sprinkler intended for installation near the wall and ceiling. The special deflector provides a water spray pattern outward in a quarter-spherical pattern. Most of the water is directed away from the nearby wall with a small portion directed at the wall behind the sprinkler. The top of the deflector is oriented parallel with the ceiling or roof. The flow arrows point in the direction of discharge. Marked "SIDEWALL" and "TOP" with an arrow and the word "FLOW".

EXTENDED COVERAGE (EC) SPRINKLER: A spray sprinkler designed to discharge water over an area having the maximum dimensions indicated in the individual listings. Maximum area of coverage, minimum flow rate, orifice size, and nominal K-Factor are specified in the individual listings. EC sprinklers are intended for Light-Hazard occupancies with smooth, flat, horizontal ceilings unless otherwise specified. In addition to the above markings, the sprinkler is marked "EC".

QUICK RESPONSE (QR) SPRINKLER: A spray sprinkler with a fast-actuating operating element. The use of quick response sprinklers may be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction (AHJ) prior to installing.

QUICK RESPONSE EXTENDED COVERAGE (QREC) SPRINKLER: A spray sprinkler designed to discharge water over an area having the maximum dimensions indicated in the individual listing. This is a sprinkler with an operating element that meets the criteria for quick response. QREC sprinklers are only intended for Light Hazard occupancies. The sprinkler is marked "QREC".

FLUSH SPRINKLER: A decorative spray sprinkler intended for installation with a concealed piping system. The unit is mounted flush with the ceiling or wall, with the fusible link exposed. Upon actuation, the deflector extends beyond the ceiling or wall to distribute water discharge. The sprinkler is marked "SSP", "PEND", or "SIDEWALL" and "TOP".

CONCEALED SPRINKLER: A decorative spray sprinkler intended for installation with a concealed piping system. The sprinkler is hidden from view by a cover plate installed flush with the ceiling or wall. During fire conditions, the cover plate detaches, and upon sprinkler actuation, the deflector extends beyond the ceiling or wall to distribute water discharge. The sprinkler is marked "SSP", "PEND", or "SIDEWALL" and "TOP".

RECESSED SPRINKLER: A spray sprinkler assembly intended for installation with a concealed piping system. The assembly consists of a sprinkler installed in a decorative adjustable recessed escutcheon that minimizes the protrusion of the sprinkler beyond the ceiling or wall without adversely affecting the sprinkler distribution or sensitivity. Refer to the appropriate technical data page for allowable sprinkler models, temperature ratings, and occupancy classifications. DO NOT RECESS ANY SPRINKLER NOT LISTED FOR USE WITH THE ESCUTCHEON.

CORROSION-RESISTANT SPRINKLER: A special service sprinkler with non-corrosive protective coatings, or that is fabricated from non-corrosive material, for use in atmospheres that would normally corrode sprinklers.

DRY SPRINKLER: A special-service sprinkler intended for installation on dry pipe systems or wet pipe systems where the sprinkler is subject to freezing temperatures. The unit consists of a sprinkler permanently secured to an extension nipple with a sealed inlet end to prevent water from entering the nipple until the sprinkler operates. The unit MUST be installed in a tee fitting. Dry upright sprinklers are marked with the "B" dimension [distance from the face of the fitting (tee) to the top of the deflector]. Dry pendent and sidewall sprinklers are marked with the "A" dimension [the distance from the face of fitting (tee) to the finished surface of the ceiling or wall].

LARGE DROP SPRINKLER: A type of special application sprinkler used to provide fire control of specific high-challenge fire hazards. Large drop sprinklers are designed to produce an umbrella-shaped spray pattern downward with a higher percentage of "large" water droplets than standard spray sprinklers. The sprinkler has an extra-large orifice with a nominal K-Factor of 11.2. Marked "HIGH CHALLENGE" and "UPRIGHT".

EARLY SUPPRESSION FAST-RESPONSE (ESFR) SPRINKLER: A sprinkler intended to provide fire suppression of specific high-challenge fire hazards through the use of a fast response fusible link, 14.0, 16.8, or 25.2 nominal K-Factor, and special deflector. ESFR sprinklers are designed to produce high-momentum water droplets in a hemispherical pattern below the deflector. This permits penetration of the fire plume and direct wetting of the burning fuel surface while cooling the atmosphere early in the development of a high-challenge fire. Marked "ESFR" and "UPRIGHT" or "PEND".

INTERMEDIATE LEVEL/RACK STORAGE SPRINKLER: A standard spray sprinkler assembly designed to protect its operating element from the spray of sprinklers installed at higher elevations. The assembly consists of a standard or large orifice upright or pendent sprinkler with an integral upright or pendent water shield and guard assembly. Use only those sprinklers that have been tested and listed for use with the assembly. Refer to the technical data page for allowable sprinkler models.

RESIDENTIAL SPRINKLER: A sprinkler intended for use in the following occupancies: one- and two-family dwellings with the fire protection sprinkler system installed in accordance with NFPA 13D; residential occupancies up to four stories in height with the fire protection system installed in accordance with NFPA 13R; and where allowed by the Authority Having Jurisdiction in residential portions of any occupancy with the fire protection system installed in accordance with NFPA 13.



TECHNICAL DATA

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Residential sprinklers have a unique distribution pattern and utilize a “fast response” heat sensitive operating element. They enhance survivability in the room of fire origin and are designed to provide a life safety environment for a minimum of ten minutes. For this reason, residential sprinklers must not be used to replace standard sprinklers unless tested for and approved by the Authority Having Jurisdiction. In addition to standard markings, the unit is identified as “RESIDENTIAL SPRINKLER” or “RES”.

4. INSTALLATION

Refer to appropriate NFPA Installation Standards.

5. OPERATION

Refer to the appropriate sprinkler technical data page(s).

6. INSPECTIONS, TESTS AND MAINTENANCE

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

7. AVAILABILITY

Viking 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.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers and the appropriate sprinkler general care, installation, and maintenance guide. Vikings 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. The sprinkler technical data page may contain installation requirements specific for the sprinkler model selected. The use of certain types of sprinklers may be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.

**BULLETIN****REGULATORY AND HEALTH
WARNINGS**

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

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

1. DESCRIPTION

Regulatory and Health Warnings applying to materials used in the manufacture and construction of fire protection products are provided herein as they relate to legally mandated jurisdictional regions.

⚠ WARNING**STATE OF CALIFORNIA, USA**

Installing or servicing fire protection products such as sprinklers, valves, piping etc. can expose you to chemicals including, but not limited to, lead, nickel, butadiene, titanium dioxide, chromium, carbon black, and acrylonitrile which are known to the State of California to cause cancer or birth defects or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov

2. WARRANTY TERMS AND CONDITIONS

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



TECHNICAL DATA

SPRINKLER ESCUTCHEONS

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1. DESCRIPTION

Viking sprinkler escutcheons are ornamental plates used with 3/8" NPT (10 mm BSP)*, 1/2" NPT (15 mm BSP)*, and 3/4" NPT (20 mm BSP)* frame-style pendent and sidewall* sprinklers. The escutcheons are installed between the sprinklers and the ceiling or wall for a pleasing appearance. They are available with several finish options to meet design requirements.

Viking recessed and adjustable escutcheons provide a low-profile decorative recessed sprinkler installation. The E-1 Recessed Escutcheon may be recessed up to 5/8" (16 mm). The Model G-1 Recessed Escutcheon allows horizontal sidewall sprinklers to be recessed up to 1/2" (13 mm). The Model F-1 Adjustable Escutcheon has 1/2" (13 mm) total adjustment available.

The two-piece design of Viking's recessed and adjustable escutcheons allows installation and testing of the sprinklers prior to installing the ceiling or wall. Viking's Model E-1, F-1, and G-1 Escutcheons feature a slip-on design, while the Model E-2 and E-3 escutcheons are threaded (outer cup threads onto the adapter).

The Viking adjustable and recessed escutcheons are made to allow for minor adjustments due to pipe or ceiling pitch. These escutcheons can be removed and reinstalled, allowing access above removable ceiling panels for servicing building equipment without shutting down the sprinkler system and removing the sprinkler.

Viking standard 1/8" (3 mm) style flat and 1" (25 mm) style raised surface-mounted escutcheons have a one-piece design.

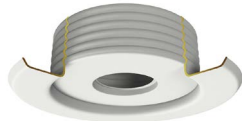
***Refer to the specific sprinkler technical data page for the escutcheon(s) listed and approved for use with the sprinkler.**

2. LISTINGS AND APPROVALS

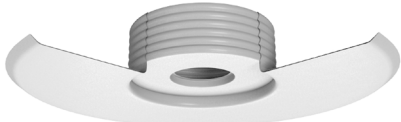
Refer to the specific sprinkler technical data pages for sprinkler listings and approvals. Sprinklers must be specifically listed and/or approved for recessed installation. When using Viking Model E-1, E-2, E-3, F-1, and G-1 escutcheons for recessed applications, refer to technical data describing the sprinkler model to be used to verify whether the sprinkler is listed and/or approved for recessed installations. **NOTE:** Viking's thread-on style Model E-2 and E-3 Recessed Escutcheons carry the same listings and approvals as the slip-on style Model E-1 Recessed Escutcheons. **Model E-3 Recessed Escutcheon also meets IBC-ASCE/SEI 7 Codes for Seismic Areas C, D, and E.**



E-1 Escutcheon



E-2 Escutcheon



E-3 Escutcheon



F-1 Escutcheon



Raised Surface Mount Escutcheon



G-1 Escutcheon



Expansion Plate



Flat Surface Mount Escutcheon



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3. TECHNICAL DATA

Specifications:

A. Slip-on Style Model E-1 Recessed Escutcheons

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 3-1/16" (78 mm)

Depth of Center Adapter Ring: 11/32" (9 mm) +/- 1/32" (1 mm)

Adjustment Range: Flush to 5/8" (16 mm) recessed

NOTE: Escutcheon adapter is stamped "Viking Model E-1".

Available since 1987.

B. Threaded Style Model E-2 Recessed Escutcheons

Depth of Outer Cup: 13/16" (21 mm)

Outside Diameter of Outer Cup: 3-1/8" (80 mm)

Depth of Center Adapter Ring: 21/32" (17 mm)

Adjustment Range: 27/32" (21 mm) total adjustment with 1/2" (13 mm) maximum recess available. **NOTE:** Face of escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup.

Available since 2000.

C. Threaded Style Model E-3 Recessed Escutcheons

Depth of Outer Cup: 13/16" (21 mm)

Outside Diameter of Outer Cup: 5-1/8" (130 mm). (See Figure 4)

Depth of Center Adapter Ring: 21/32" (17 mm)

Adjustment Range: 27/32" (22 mm) total adjustment with 1/2" (13 mm) maximum recess available. **Note:** Face of escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup.

Available since 2012.

D. Model F-1 Adjustable Escutcheons

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 3-1/16" (78 mm)

Depth of Center Adapter Ring: 23/32" (18 mm)

Adjustment Range: 1/2" (13 mm) total adjustment with 1/4" (6 mm) maximum recess available. **Note:** The face of escutcheon adapter may extend up to 1/4" (6 mm) beyond the edge of the escutcheon cup.

NOTE: Escutcheon adapter is stamped "Viking Model F-1".

Available since 1988.

E. Slip-on Style Model G-1 Recessed Escutcheons (US Patent No. 8,376,060)

Depth of Outer Cup: 1-1/16" (27 mm)

Outside Diameter of Outer Cup: 4" (102 mm)

Depth of Center Adapter Ring: 1-7/16" (37 mm)

Adjustment Range: Up to 5/8" (16 mm) total adjustment available for use with ceilings sloped up to 8/12 (33.7°). May be recessed up to 1/2" (13 mm), depending on degree of slope. **NOTE:** The face of escutcheon adapter may extend up to 1/2" (13 mm) beyond the edge of the escutcheon cup.

NOTE: Escutcheon adapter is stamped "Viking Model G-1".

Available since 2007.

F. Expansion Plate (optional)

1. Base Part No. 12620 for use with Model E-1, E-2, and F-1 Escutcheons. May also be used with dry recessed sprinklers, dry standard adjustable sprinklers, and flat plate concealed sprinklers.

Outside Diameter: 5" (127 mm)

Inside Diameter: 2-3/16" (56 mm)

Available since 2005.

2. Base Part No. 13128 for use with Domed Concealed Sprinklers.

Outside Diameter: 5" (127 mm)

Inside Diameter: 2-15/32" (63 mm) for Part No. 13128.

Available since 2005.

3. Base Part No. 16340 for use with Concealed Sprinkler VK636.

Outside Diameter: 5-5/16" (135 mm)

Inside Diameter: 2-3/8" (61 mm)

Available since 2010.



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G. Standard Flat and Raised Surface-Mounted Escutcheons

Depth of Escutcheons: Flat: 1/8" (3 mm), Raised: 1" (25 mm)
Available since 1972.

Material Standards:

A. Slip-on Style Model E-1 Recessed Escutcheons:

Cold Rolled Steel UNS-G10080 or Stainless Steel UNS-S30400

B. Threaded Style Model E-2 and E-3 Recessed

Escutcheons:

24 ga. (1 mm) thick 1010-1018 mild steel

C. Model G-1 Recessed Escutcheons and Model F-1

Adjustable Escutcheons: Cold Rolled Steel UNS-G10080

D. Expansion Plate (optional): Cold Rolled Steel UNS-G10080

E. Standard Flat and Raised Surface-Mounted Escutcheons:

Flat Style Part Numbers 01960A, 01015A, 02960A, and 05464A: Cold Rolled Steel UNS-G10080.

Flat Style Part Numbers 09488, 07526, and 09596*: Stainless Steel UNS-S43000

* These may also be special ordered and manufactured from Brass (nonmagnetic material). Contact the manufacturer for more information.

Raised Style Part Numbers 01961B and 01016A: Brass UNS-C26000
or UNS-C26800.

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

Viking recessed and adjustable escutcheons are available as escutcheon packages (includes outer cup and adapter). Order Viking escutcheons by adding the appropriate suffix for the finish to the base part number.

A. Model F-1 Adjustable and Model E-1, E-2, E-3, and G-1 Recessed Escutcheons: To order as an escutcheon package (includes outer cup and adapter), specify the appropriate package part number from Table 1.

B. Standard Flat and Raised Surface-Mounted Escutcheons: Specify the flat or raised escutcheon part number from Table 1.
Finish Suffix: Bright Brass = B, Polished Chrome = F, White Polyester = M-/W, and Black Polyester = M-/B.

For example, the Model E-1 Recessed Escutcheon for 1/2" NPT sprinkler, Brass finish = Part No. 06419AB. The 1/2" Model E-1 Recessed Escutcheon is also available in Antique Brass, Brushed Copper, Brushed Chrome, and Brushed Brass as standard finishes.

NOTE: Sprinklers are not included and must be ordered separately.

4. INSTALLATION

A. If the proposed installation of Model E-1, E-2, E-3, F-1, or G-1 Escutcheons requires recessing any of the heat-sensitive operating element, some Authorities Having Jurisdiction may limit the use, depending on the occupancy classification. Refer to the Authority Having Jurisdiction prior to installation. The use of quick response sprinklers may also be limited due to occupancy and hazard. Refer to the Authority Having Jurisdiction prior to installation.

B. All escutcheon styles are made to thread onto the sprinkler head prior to installing the sprinkler into the fitting. The escutcheon must be attached to the sprinkler prior to applying pipe-joint compound or PTFE tape to the sprinkler threads. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.

C. Refer to the appropriate sprinkler technical data page for additional warnings and installation instructions and then install the escutcheons according to the following sequence.

D. Model F-1 Adjustable and Model E-1, E-2, E-3, and G-1 Recessed Escutcheons:

(Refer to Figures 2-5.)

Step 1: Install all piping and cut the sprinkler nipple so that the reducing coupling is at the desired location and centered in a minimum 2-5/16" (59 mm) to a maximum 2-1/2" (64 mm) diameter opening in the ceiling or wall for Model E-1, E-2, or F-1 Escutcheons, 2-5/16" (59 mm) to 4-1/2" (115mm) for Model E-3, or 2-5/8" (66 mm) to 3-3/4" (95 mm) for Model G-1 Escutcheons.

Step 2: Secure the escutcheon adapter onto the sprinkler by hand turning the adapter clockwise onto the sprinkler threads. The face of the adapter should rest on the shoulder of the sprinkler wrench boss.

Step 3: Apply a small amount of pipe-joint compound or PTFE tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.



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Step 4: Install the sprinkler into the coupling using the special recessed sprinkler wrench only, taking care not to over-tighten or damage the sprinkler operating parts. DO NOT use the escutcheon, sprinkler deflector, or fusible element to start or thread the sprinkler into a fitting.

Step 5: Test the system as required and repair all leaks. If a thread leak occurs, normally the unit must be removed, new pipe-joint compound or PTFE tape applied, and then reinstalled. This is due to the fact that when the joint seal leaks, the sealing compound or tape is washed out of the joint.

Step 6: **Remove plastic protective sprinkler caps and bulb shields AFTER the wall or ceiling finish work is completed where the sprinkler is installed and there no longer is a potential for mechanical damage to the sprinkler operating elements.** To remove the bulb shields, simply pull the ends of the shields apart where they are snapped together. To remove caps from frame style sprinklers, turn the caps slightly and pull them off the sprinklers. **SPRINKLER CAPS AND BULB SHIELDS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!** Retain a protective cap in the spare sprinkler cabinet.

Step 7: After installing the ceiling or wall with the required opening size, press on or thread on (depends on the style of escutcheon used) the outer escutcheon cup until the flanges touch the surface of the ceiling or wall.

(NOTE: If the optional escutcheon expansion plate is used, first slide it onto the escutcheon cup. The flange on the expansion plate should touch the surface of the ceiling or wall.)

With the slip-on style Model E-1 Recessed Escutcheon, the maximum adapter recess is 5/8" (16 mm).

With the threaded style Model E-2 and E-3 Recessed Escutcheons, the maximum recess is 1/2" (13 mm). **Note:** The face of the escutcheon adapter may extend up to 11/32" (9 mm) beyond edge of escutcheon cup, resulting in 27/32" (21 mm) total adjustment range.

With the Model F-1 Adjustable Escutcheon, the maximum recess is 1/4" (6 mm). **Note:** The face of the escutcheon adapter may extend up to 1/4" (6 mm) beyond the edge of the escutcheon cup, resulting in 1/2" (13 mm) total adjustment range.

With the slip-on style Model G-1 Recessed Escutcheon, the maximum adapter recess is 1/2" (13 mm).

DO NOT modify the unit. If necessary, re-cut the sprinkler drop nipple as required.

E. Standard Flat and Raised Surface-Mounted Escutcheons:

Step 1: Install all piping and cut the sprinkler nipple so that the reducing coupling is at the desired location and centered in a maximum 2-1/2" (64 mm) diameter opening in the ceiling or wall.

Step 2: Secure the escutcheon onto the sprinkler by hand turning the escutcheon clockwise onto the sprinkler threads. (The convex surface of the escutcheon must face toward the deflector of the sprinkler.)

Step 3: Apply a small amount of pipe-joint compound or PTFE tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet. **NOTE:** Sprinklers with protective caps or bulb shields must be contained within the caps or shields before applying pipe-joint compound or tape.

Step 4: Install the sprinkler into the coupling using the special sprinkler wrench only, taking care not to over-tighten or damage the sprinkler operating parts. DO NOT use the escutcheon, sprinkler deflector, or fusible element to start or thread the sprinkler into a fitting.

Step 5: After installation, the entire sprinkler system must be tested. The test must be conducted to comply with the installation standards. Make sure the sprinkler is properly tightened. If a thread leak occurs, normally the unit must be removed, new pipe-joint compound or tape applied, and then reinstalled. This is due to the fact that when the joint seal leaks, the sealing compound or tape is washed out of the joint.

Step 6: **Remove plastic protective sprinkler caps and bulb shields AFTER the wall or ceiling finish work is completed where the sprinkler is installed and there no longer is a potential for mechanical damage to the sprinkler operating elements.** To remove the bulb shields, simply pull the ends of the shields apart where they are snapped together. To remove caps from frame style sprinklers, turn the caps slightly and pull them off the sprinklers. **SPRINKLER CAPS AND BULB SHIELDS MUST BE REMOVED FROM SPRINKLERS BEFORE PLACING THE SYSTEM IN SERVICE!** Retain a protective cap in the spare sprinkler cabinet.

DO NOT modify the unit. If necessary, re-cut the sprinkler drop nipple as required.

**TECHNICAL DATA****SPRINKLER ESCUTCHEONS**

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F. Disassembly:

The outer cups of Viking adjustable and recessed escutcheons can be removed and reinstalled without removing the sprinklers to allow access above the ceiling or to replace it, if necessary.

1. For slip-on style Model E-1 or G-1 Recessed Escutcheons and Model F-1 Adjustable Escutcheons, remove the outer cup simply by pulling it outward and away from the wall or ceiling.
2. To remove the outer cup of the threaded style Model E-2 and E-3 Recessed Escutcheons, turn it counterclockwise to unthread it from the adapter.

If it is necessary to remove the entire unit, the system must be removed from service. Refer to maintenance instructions on the appropriate sprinkler technical data page and follow all warnings and instructions.

5. OPERATION

Refer to the sprinkler technical data page for the sprinkler model used.

6. INSPECTIONS, TESTS AND MAINTENANCE

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

7. AVAILABILITY

Viking sprinklers and escutcheons 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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Base Part Number	Material	Style	Sprinkler Thread Size	Available Finishes	Outside Diameter
Standard Flat and Raised Surface-Mounted Escutcheons					
01960A	Steel	Flat	1/2" (15 mm)	B, F	3-5/16" (84 mm)
09488	Stainless Steel††	Flat	1/2" (15 mm)	F, JN	3-5/16" (84 mm)
01015A	Steel	Flat	3/4" (20 mm)	F	3-5/16" (84 mm)
02960A	Steel	Flat	1/2" (15 mm)	B, F, M/W, M/B	2-3/4" (70 mm)
07526	Stainless Steel††	Flat	1/2" (15 mm)	F, M/W, JN	2-3/4" (70 mm)
05464A	Steel	Flat	3/4" (20 mm)	B, F, M/W	2-3/4" (70 mm)
09596	Stainless Steel††	Flat	3/4" (20 mm)	F, JN	2-3/4" (70 mm)
01961B	Brass	Raised	1/2" (15 mm)	F	3-1/16" (78 mm)
01016A	Brass	Raised	3/4" (20 mm)	F	3-1/16" (78 mm)
E-1 Slip-on Style Recessed Escutcheon Packages (includes adapter and outer cup)					
11123	Steel	Recessed Slip-on	3/8" (10 mm)	F, M/W	3-1/16" (78 mm)
06419A	Steel	Recessed Slip-on	1/2" (15 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
07902	Stainless Steel	Recessed Slip-on	1/2" (15 mm)	F, M/W, JN	3-1/16" (78 mm)
20123	Stainless Steel	Recessed Slip-on	3/4" (20 mm)	F, M/W, JN	3-1/16" (78 mm)
20369	Steel	Recessed Slip-on	3/4" (20 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
E-2 Threaded Style Recessed Escutcheon Packages (includes adapter and outer cup)					
11038	Steel	Recessed Threaded	1/2" (15 mm)	F, M/W	3-1/8" (79 mm)
20130	Steel	Recessed Threaded	3/4" (20 mm)	F, M/W	3-1/8" (79 mm)
E-3 Threaded Style Recessed Escutcheon Packages (includes adapter and outer cup)					
18347	Steel	Recessed Threaded	1/2" (15 mm)	F, M/W	5 -1/8" (130mm)
20135	Steel	Recessed Threaded	3/4" (20 mm)	F, M/W	5 -1/8" (130mm)
F-1 Adjustable Escutcheon Packages (includes adapter and outer cup)					
06911A	Steel	Adjustable	1/2" (15 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
20371	Steel	Adjustable	3/4" (20 mm)	B, F, M/W, M/B	3-1/16" (78 mm)
G-1 Recessed Escutcheon Package (includes adapter and outer cup)					
14315	Steel	Recessed Slip-on	1/2" (15 mm)	B, F, M/W, M/B	4" (102 mm)
20133	Steel	Recessed Slip-on	3/4" (20 mm)	B, F, M/W, M/B	4" (102 mm)
Optional Expansion Plates Available Separately					
12620	Steel	E-1, E-2 Recessed & F-1 Adjustable	3/8", 1/2", & 3/4" (10, 15, & 20 mm)	B, F, M/W, M/B, M/SW1641, B/B, F/B, E/B	5" (127 mm)
13128	Steel	Domed Concealed	1/2" & 3/4" (15 & 20 mm)	F, M/W	5" (127 mm)
16340	Steel	Concealed (for Sprinkler VK636)	3/4" (20 mm)	F, M/W	5-5/16" (135 mm)
Escutcheon Finishes: B = Bright Brass, F = Polished Chrome, M/W = White Polyester, M/B = Black Polyester, JN = Electroless Nickel PTFE, M/SW1641 = Navajo White Paint, B/A = Antique Brass, B/B = Brushed Brass, F/B = Brushed Chrome, E/B = Brushed Copper. Note: Other colors are available on request with the same listings and approvals as the standard colors. See Sherwin-Williams® Color Answers™ Interior Color Selection color chart. ††Escutcheons 09488, 07526, and 09596 may also be special ordered and manufactured from Brass (non-magnetic material). Contact the manufacturer for more details.					
Table 1					



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IMPORTANT NOTES

Per the current edition of NFPA 13: "Escutcheons used with recessed, flush-type, or concealed sprinklers shall be part of a listed sprinkler assembly." The Viking Corporation will not authorize the sale of unlisted recessed sprinkler assemblies nor assume any liability involving recessed sprinkler assemblies that are not considered cULus Listed, FM Approved, or in full compliance with NFPA requirements".

Listings and approvals vary, depending on the sprinkler model, temperature rating, finish, and occupancy classification.

⚠ 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.

IMPORTANT: 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.

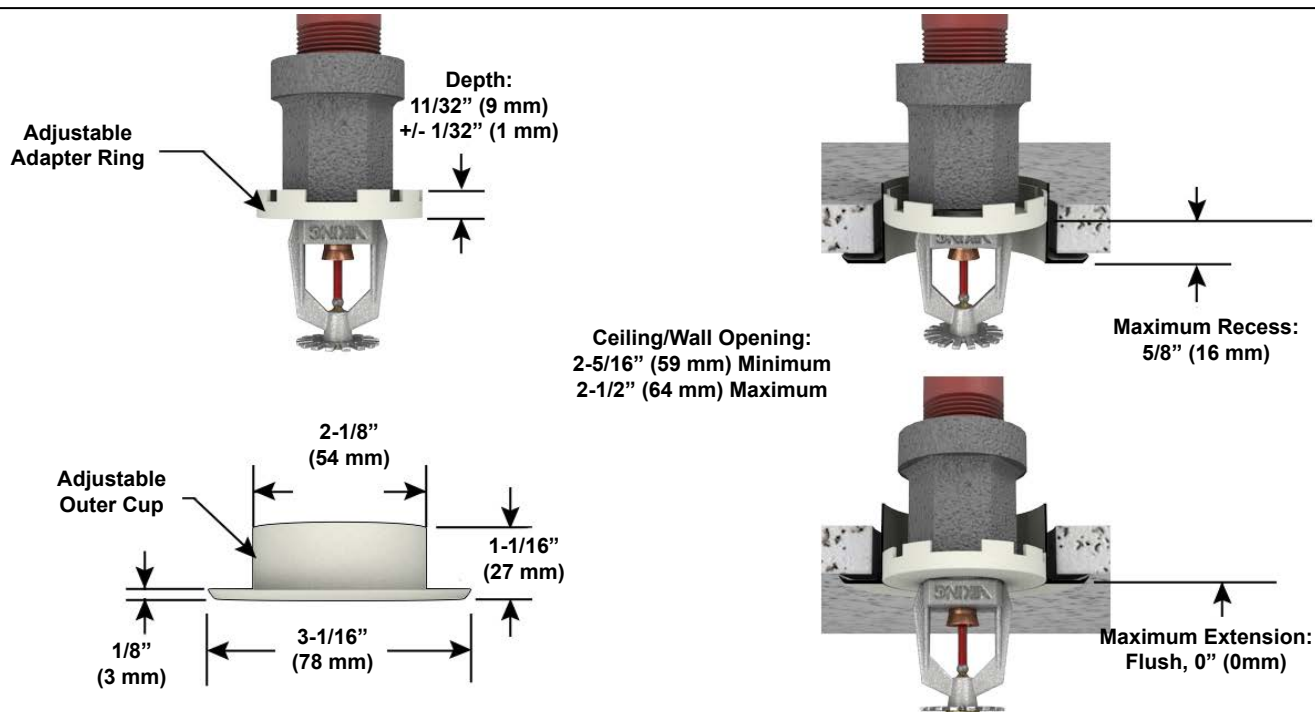


Figure 2: Installation of a Slip-on Style Model E-1 Recessed Escutcheon with $5/8''$ (16 mm) Maximum Recess.



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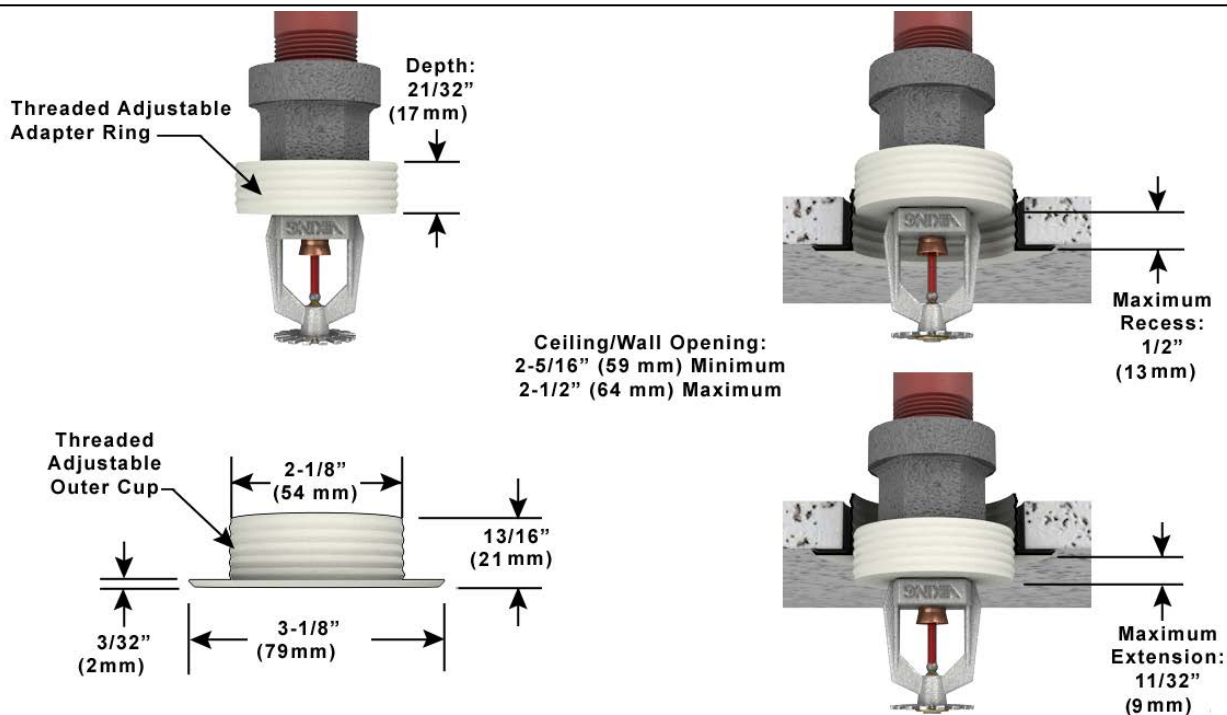


Figure 3: Installation of a Thread-on Style Model E-2 Recessed Escutcheon with $\frac{27}{32}$ " (21 mm) Total Adjustment.

Model E-3 Recessed Escutcheon meets IBC-ASCE/SEI 7 Codes for Seismic Areas C, D, and E

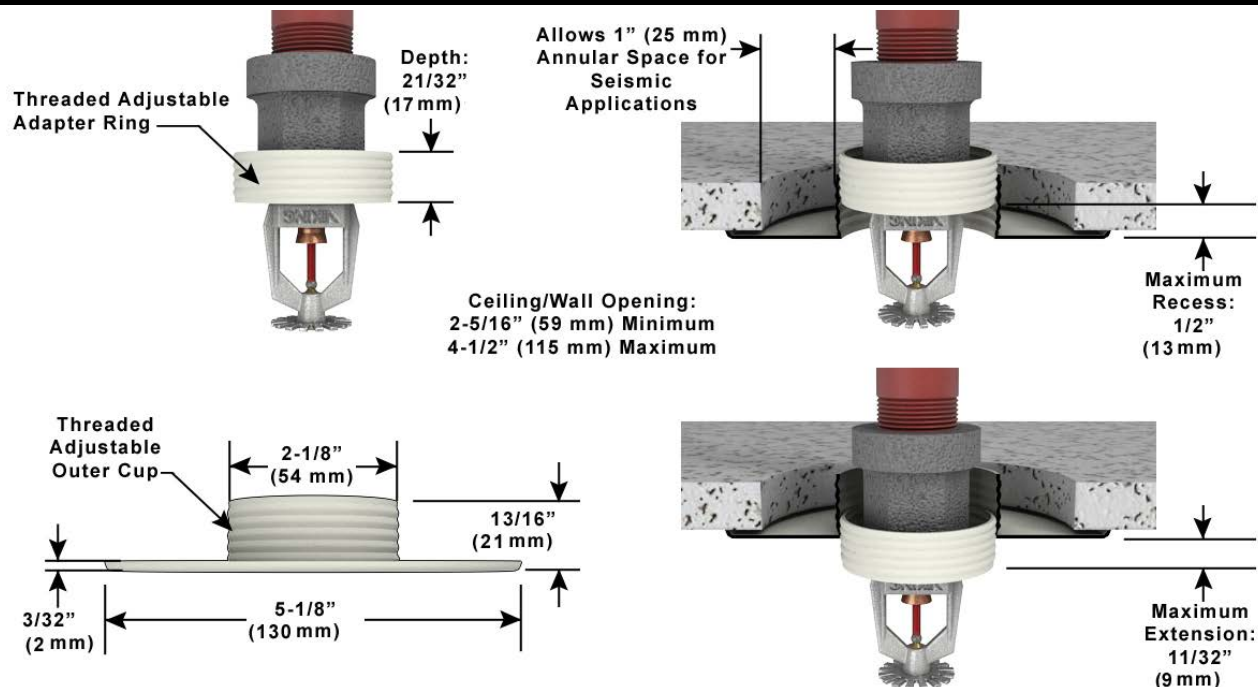


Figure 4: Installation of a Thread-on Style Model E-3 Recessed Escutcheon with $\frac{27}{32}$ " (21 mm) Total Adjustment.



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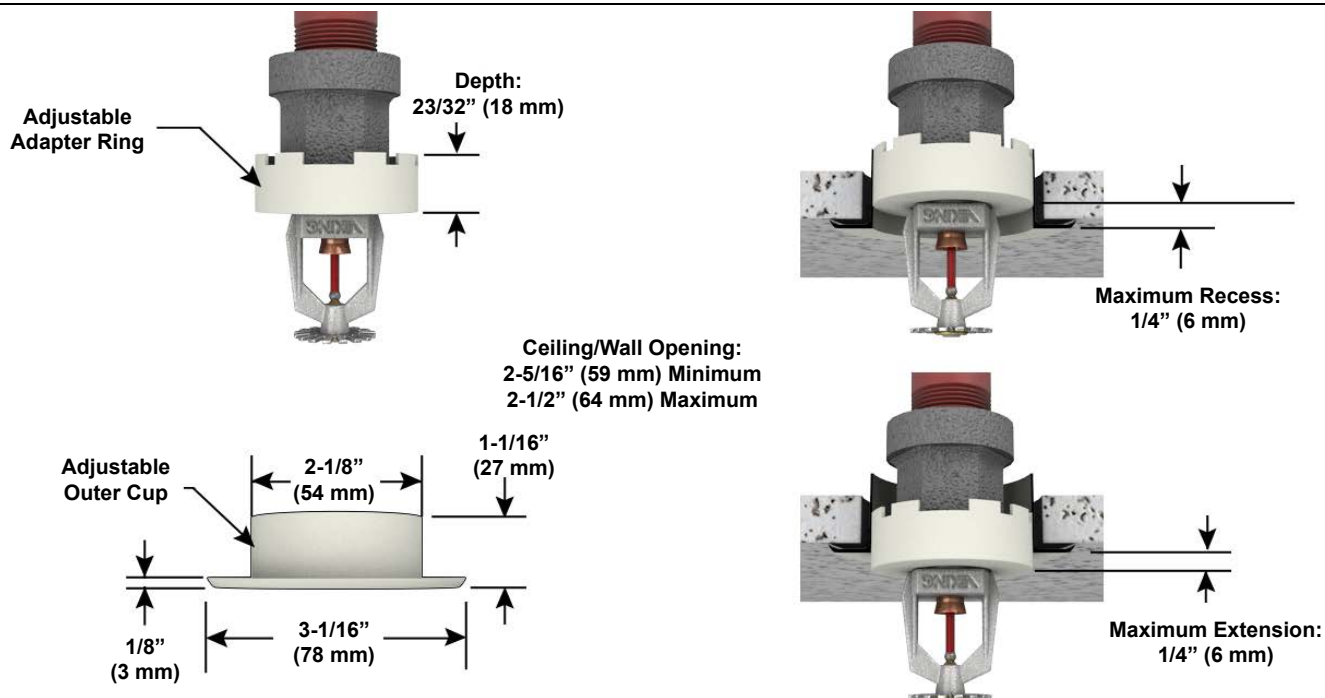


Figure 5: Installation of a Model F-1 Adjustable Escutcheon with $\frac{1}{2}$ " (12 mm) Total Adjustment.

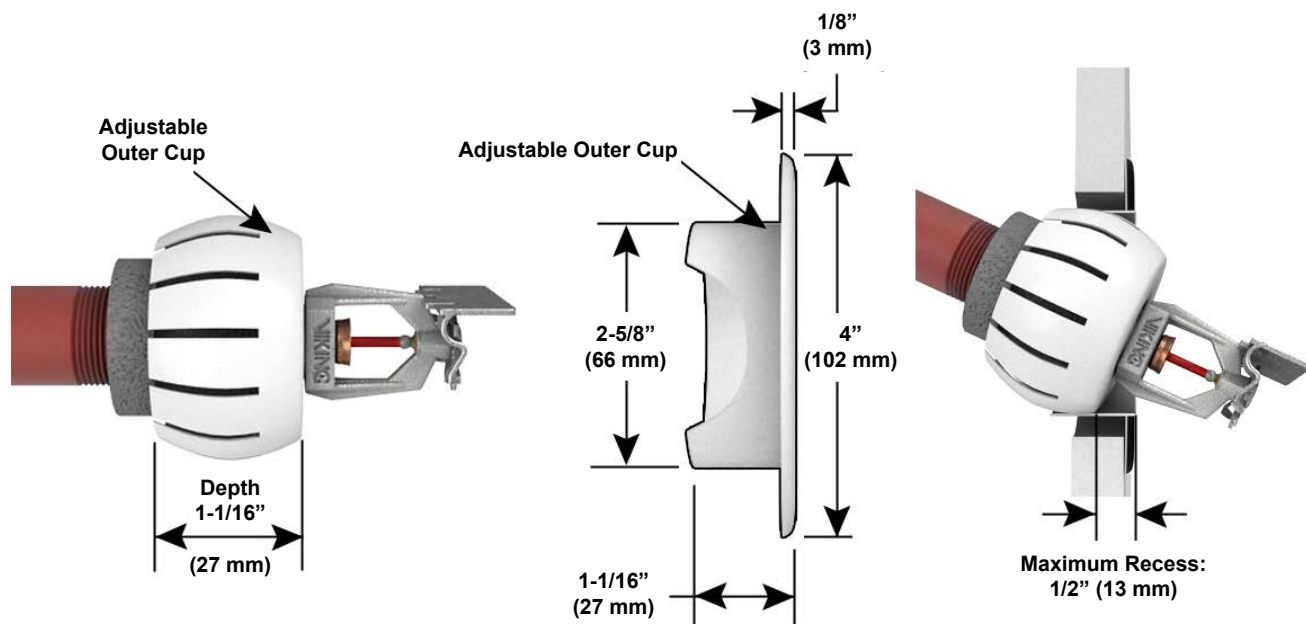


Figure 6: Installation of the Model G-1 Recessed Escutcheon with up to $\frac{1}{2}$ " (12.7 mm) Adjustment.



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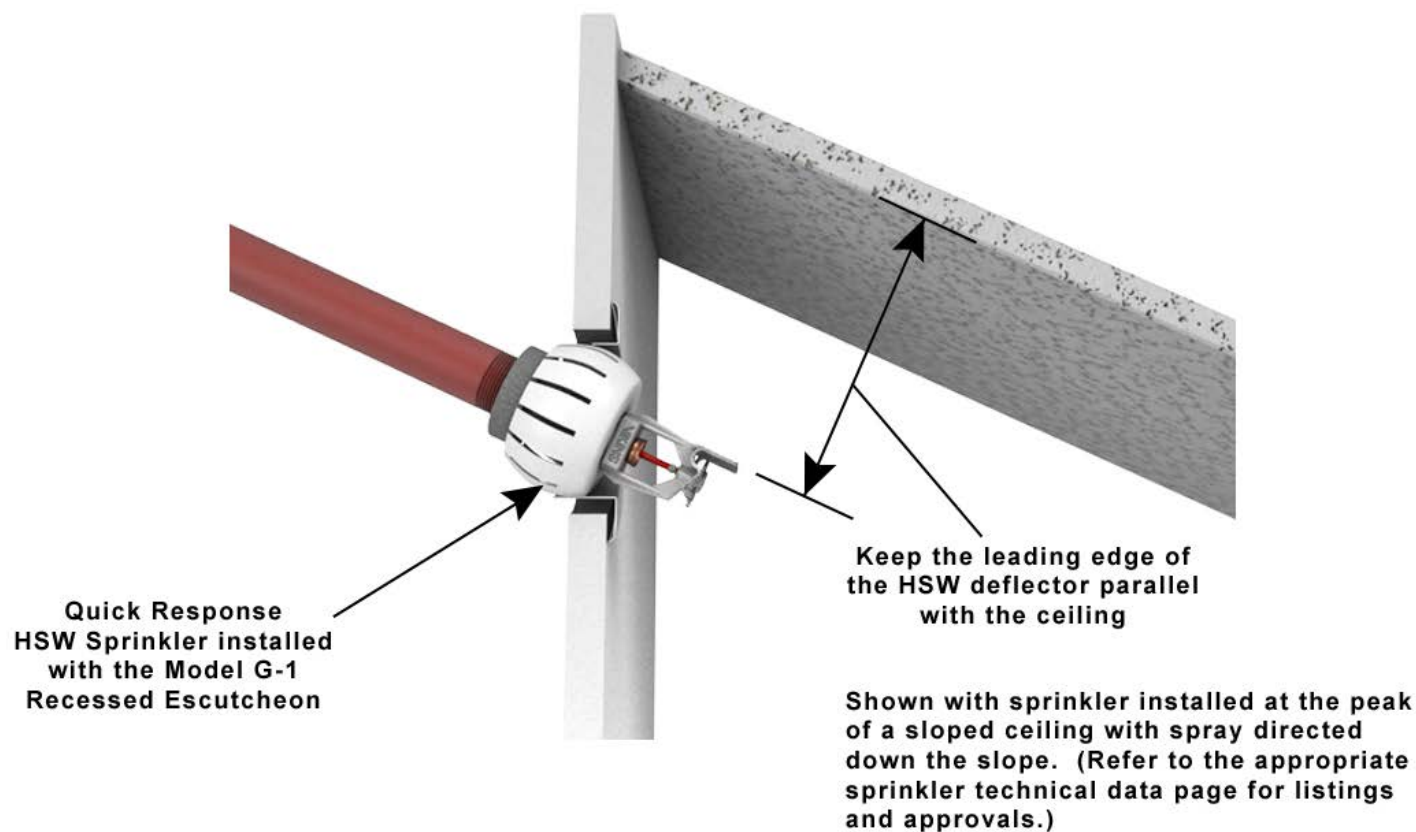


Figure 7: Model G-1 Recessed Escutcheon Installed with a Residential HSW Sprinkler below a sloped ceiling.