

INFORMAL BID CITY OF ST. LOUIS

OFFICE OF THE SUPPLY COMMISSIONER
1200 MARKET ST RM 324
ST LOUIS MO 63103-2842



REQUEST FOR QUOTE
63213Q0075

PAGE
1

ADDRESS CORRESPONDENCE TO

... We agree to furnish the following articles to the City of St. Louis, free of any extra charges, in the quantity named and at the prices respectively stated:

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MEDIUM SECURITY
7600 HALL STREET
ST LOUIS MO

63147

SEE TERMS AND CONDITIONS ON THE REVERSE SIDE OF THIS QUOTATION SHEET.

DATE PRINTED 01/17/13	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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REPLY DUE BY: 01/29/13 12:00 O'CLOCK NOON

NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	REQ LINE NUMBER : 0001					
	50	EA	CITY	633FACILITIES		
	1 SPRINKLER HEADS					
	MFGR: VIKING CORP.					
	DESCRIPTION: INSTITUTIONAL QUICK RESPONSE/OREC FLUSH PENDING SPRINKLER, VK410 (K5.6)					
	NO SUBSTITUTIONS.					
	BIDDING:					
	DEPT. CONTACT: LEE ELLISON 314-621-5848, X1074					
	STATE BEST GUARANTEED DELIVERY: A.R.O.					
	IT IS THE POLICY OF THE SUPPLY DIVISION THAT ALL BIDS/ CONTRACTS AWARDED IN THE AMOUNT OF \$500.00 AND ABOVE ADHERE TO THE MAYOR'S EXECUTIVE ORDER #28 WHICH REQUIRES MINIMUM UTILIZATION OF MINORITY OWNED BUSINESSES OF 25% AND WOMEN OWNED BUSINESSES OF 5%. ALL VENDORS MUST COMPLY WITH THIS POLICY AND ALL OTHER PROVISIONS OF EXECUTIVE ORDER NO. 28.					
	ALL BIDS MUST INCLUDE COMPLETED "BUY AMERICAN" AND "MINORITY/WOMEN UTILIZATION STATEMENT" FORMS, AND ANY SUPPLEMENTAL INFORMATION REQUIRED. ANY QUESTIONS SHOULD BE DIRECTED TO THE BUYER.					
					TOTAL →	

NAME OF FIRM	STATE DELIVERY:	COMPTROLLER	Date
ADDRESS	CALENDAR DAYS		
CITY	STATE	SIGNED BY:	SUPPLY COMMISSIONER Date
PHONE	Area Code ()		

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NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>PLEASE TYPE NAME OF CONTACT PERSON FOR THIS BID: NAME: _____ FAX: _____ E-MAIL: _____</p> <p>ALL BIDS MUST BE RETURNED IN SEALED ENVELOPE. FAXED BIDS, UNLESS SPECIFICALLY REQUESTED BY CITY, WILL BE REJECTED. IF UNCERTAIN, CONTACT BUYER NAMED HEREIN. ENVELOPE SHOULD BE MARKED WITH BID # & OPENING DATE.</p> <p>BIDDERS WISHING TO RECEIVE A BID TABULATION MUST REQUEST SAME IN ORIGINAL BID SUBMISSION. BID TABS CAN BE MAILED, FAXED OR EMAILED. MAIL REQUESTS MUST INCLUDE A STAMPED, SELF-ADDRESSED ENVELOPE. TABULATIONS REQUESTED AFTER BIDS OPEN MAY ENCOUNTER A PROCESSING DELAY.</p> <p>***** WEBSITE INFORMATION ***** * * TO DOWNLOAD SUPPLY BIDS GO TO: * * HTTP://STLOUIS-MO.GOV/SUPPLY/BID-NOTICES.CFM * * CLICK ON BID NOTICES *****</p>						
TOTAL →						

NAME OF FIRM	STATE DELIVERY: CALENDAR DAYS	COMPTROLLER	Date
ADDRESS			
CITY	STATE	SIGNED BY:	SUPPLY COMMISSIONER
PHONE	Area Code ()		Date

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REPLY DUE BY: 01/29/13 12:00 O'CLOCK NOON

NEEDED BY DATE	QUANTITY	UNIT	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>IF FREIGHT OR DELIVERY CHARGE TO BE BILLED, IT MUST BE INCLUDED IN THIS QUOTE OR IT WILL NOT BE PAID. () FREIGHT IS INCLUDED IN THE QUOTED UNIT PRICE. () WE WILL CHARGE FREIGHT/DELIVERY IN THE AMOUNT OF: \$ _____</p>						
					TOTAL →	

NAME OF FIRM		STATE DELIVERY:		COMPTRROLLER	Date
ADDRESS		CALENDAR DAYS			
CITY	STATE	SIGNED BY:		SUPPLY COMMISSIONER	Date
PHONE	Area Code ()				

VIKING®**TECHNICAL DATA****INSTITUTIONAL QUICK
RESPONSE/QREC FLUSH
PENDENT SPRINKLER
VK410 (K5.6)**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-945-4495 Email: techsvcs@vikingcorp.com

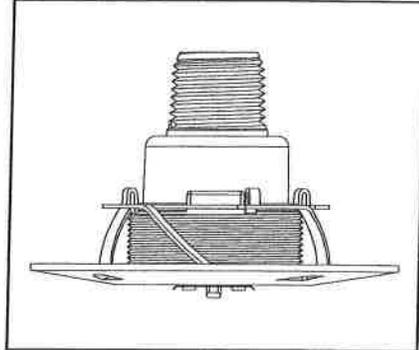
1. PRODUCT DESCRIPTION

Viking Institutional Style Quick Response Standard Coverage/Extended Coverage Flush Pendent Sprinklers are small, flush, solder link and lever sprinklers made with tamper-resistant construction. Viking institutional sprinklers have been specifically designed for use with concealed piping in institutional mental health occupancies, correctional facilities, or anywhere a likelihood of tampering with fire sprinklers by the occupants may exist.

The institutional sprinkler assembly consists of the sprinkler body, lockring, and a 3-1/4" (82.6 mm) diameter thread-on escutcheon plate. The sprinkler and escutcheon plate have a polished chrome finish.

Tests simulating conditions of misuse demonstrate the fusible element assembly consistently breaks away when connected to a 30 lb. (13.6 kg) weight dropped 6" (152 mm)†.

† For a copy of the break-a-way test described, contact The Viking Corporation. The Viking Corporation disclaims any responsibility for damages or injury (including death) caused by the operation or inoperation of sprinklers arising out of the misuse of or tampering with Viking® brand sprinklers including, without limitation, any personal injury or death arising out of or caused by the manipulation of, dismantling of, or attempted use of the sprinkler or any component as an instrument unrelated to its intended use.

**2. LISTINGS AND APPROVALS**

cULus Listed: Category VNIV

NYC Approved: MEA 89-92-E, Volume 16

cULus Listed as Quick Response Flush Pendent Sprinkler for standard areas of coverage in Light or Ordinary Hazard occupancies. Also cULus Listed for extended areas of coverage up to 16' x 16' (4.9 m x 4.9 m) in Light Hazard occupancies only. Refer to the Approval Chart on page 126c and Design Criteria on page 126d for cULus Listing requirements that must be followed.

3. TECHNICAL DATA**Specifications:**

Maximum Working Pressure: 175 psi (12 bar)

Spring: U.S.A. Patent No. 4,570,720

Thread size: 1/2" (15 mm) NPT

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

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

Overall Length: 2-9/32" (57.9 mm)

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.

Material Standards:

Sprinkler Body: Brass Casting UNS-C84400

Body Cap: Stainless Steel UNS-S30400 or UNS-S30500

Deflector: Copper UNS-C19500

Deflector Pins: Stainless Steel UNS-S30300

Button: UNS-C23000 H55-H80

Compression Screw: Brass UNS-C36000

Fusible Link Assembly: Beryllium Nickel and Eutectic Solder

Fusible Link Levers: Stainless Steel UNS-S31600

Lever Bar: Copper Alloy UNS-C72500

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

Escutcheon Materials:

Escutcheon Plate: Brass UNS-C26000

Lockring: Stainless Steel UNS-S41000

Available Finishes And Temperature Ratings:

Refer to Table 1

	TECHNICAL DATA	INSTITUTIONAL QUICK RESPONSE/QREC FLUSH PENDENT SPRINKLER VK410 (K5.6)
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The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
 Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-945-4495 Email: techsvcs@vikingcorp.com

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

Sprinkler: Base Part No. 10554

Order Sprinkler VK410 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: Polished Chrome = F

Temperature Suffix (°F/°C): 165°/74° = C, 220°/104° = F

For example, sprinkler VK410 with a 165 °F/74 °C temperature rating = Part No. 10554FC.

Escutcheon Package Part No. 10627F (includes locking and escutcheon plate).

Accessories: (Also refer to the "Sprinkler Accessories" section of the Viking data book.)

Sprinkler Wrenches*:

A. Heavy Duty Part Number 08336W/B Available since 1983, or

B. Light Duty Part Number 10366W/B** Available since 1998.

*Requires a 1/2" ratchet (not available from Viking).

**Ideal for sprinkler cabinets.

Institutional Escutcheon Installation Wrench: Part No. 10551W/B (available since 1999)

Spanner Wrench: Part No. 10729*** (for removal of institutional escutcheon plate), 2-1/2" C-C (available since 1999)

***For removal of the Institutional Quick Response Flush Pendent Sprinklers, special tools are needed (not all the required tools are available from Viking). Refer to section 6. INSPECTIONS, TESTS, AND MAINTENANCE, paragraph D. on pages 126g-h.

Sprinkler Cabinet:

Six-head capacity: Part No. 01731A (available since 1971)

Retaining Flange Assembly: Part No. 10599, includes: Retaining Flange Casting: AISI C1045 Low Carbon Steel (available since 1999)

Thickness: 13/32" (10.3 mm)

Outside Diameter: 2-3/4" (70 mm)

Socket Set Screw††: Steel Alloy

††Requires a 1/8" hex wrench for installation and removal (not available from Viking).

4. INSTALLATION

(Refer to Figures 1-4.)

WARNING: Viking sprinklers 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 automatically nullify the approval and any guarantee made by The Viking Corporation. Flush sprinklers are decorative sprinklers and may be considered special purpose. As such, some Authorities may limit the use depending on the occupancy classification. Refer to the Authority Having Jurisdiction prior to installation.

TABLE 1: AVAILABLE SPRINKLER TEMPERATURE RATINGS AND FINISHES

Sprinkler Temperature Classification	Sprinkler Nominal Temperature Rating ¹	Maximum Ambient Ceiling Temperature ²
Ordinary	165 °F (74 °C)	100 °F (38 °C)
Intermediate	220 °F (104 °C)	150 °F (65 °C)

Sprinkler Finish: Polished Chrome

Footnotes

¹ The sprinkler temperature rating is stamped on the sprinkler.

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.



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Approval Chart												
Institutional Style Quick Response Flush Pendent Sprinkler SIN VK410 Maximum 175 PSI (12 bar) WWP												
Sprinkler Base Part Number ¹	NPT Thread Size		Nominal K-Factor		Overall Length		Listings and Approvals ³ (Refer also to Design Criteria on page 126d.)					
	Inches	mm	U.S.	metric ²	Inches	mm	cULus ⁴	FM	NYC ⁵	VdS	LPCB	
10554	1/2	15	5.6	80.6	2-9/32	57.9						
Standard Coverage Applications - For Light and Ordinary Hazard Occupancies							A1	--	B1	--	--	--
Extended Coverage Applications - For Light Hazard Occupancies Only Maximum Area of Coverage: 16' x 16' (4.9 m x 4.9 m) Minimum Water Supply Requirements: 26 gpm @ 21.6 psi (98.4 L/min @ 1.49 bar)							cULus ⁵	FM	NYC	VdS	LPCB	
							A1	--	--	--	--	--
Approved Temperature Ratings A - 165 °F (74 °C) and 220 °F (104 °C) B - 165 °F (74 °C)							Approved Finish 1 - Polished Chrome					
Footnotes												
¹ Part number shown is the base part number. For complete part number, refer to current Viking price list 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 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. ⁴ Listed by Underwriter's Laboratories for use in the U.S. and Canada as a Quick Response Flush Pendent Sprinkler for standard areas of coverage. ⁵ Listed by Underwriter's Laboratories for use in the U.S. and Canada as a Quick Response Extended Coverage Flush Pendent Sprinkler for Light Hazard occupancies only. ⁶ Accepted for use, City of New York Department of Buildings, MEA Number 89-92-E, Vol. 16.												

Temperature	KEY
Finish	
A1X ← Escutcheon (if applicable)	

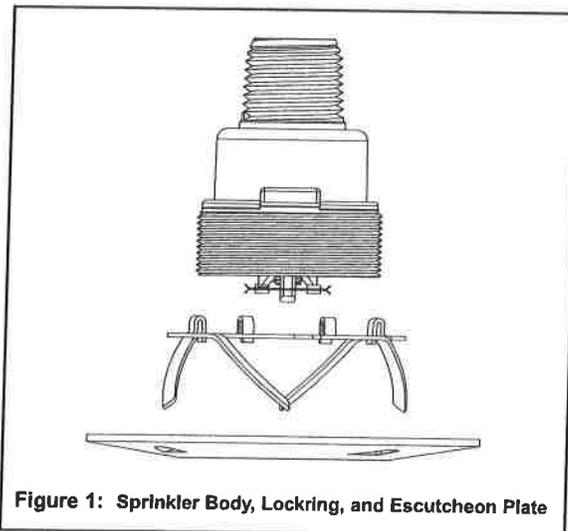


Figure 1: Sprinkler Body, Lockring, and Escutcheon Plate

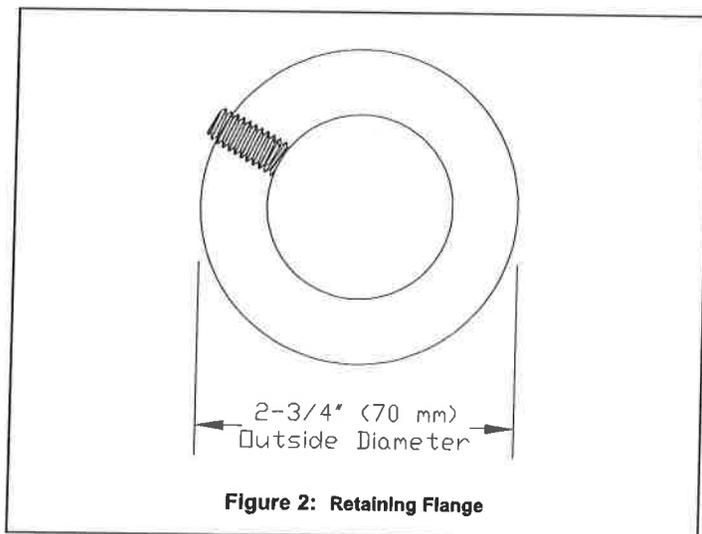


Figure 2: Retaining Flange

	TECHNICAL DATA	INSTITUTIONAL QUICK RESPONSE/QREC FLUSH PENDENT SPRINKLER VK410 (K5.6)
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DESIGN CRITERIA

(Also refer to the Approval Chart on page 126c)

cULus Listing Requirements for Standard Coverage Applications:

Sprinkler VK410 is cULus Listed as a Quick Response Flush Pendent Sprinkler for standard areas of coverage as indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13.

- Designed for use in Light and Ordinary Hazard occupancies.
- The sprinkler must be installed in the pendent position in fixed fire protection systems (wet, dry, deluge, or preaction systems).
- 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) 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 installation and obstruction rules contained in NFPA 13 for standard coverage spray pendent sprinklers must be followed.

cULus Listing Requirements for Extended Coverage Applications:

Sprinkler VK410 is cULus Listed as a Quick Response Extended Coverage Flush Pendent Sprinkler as Indicated in the Approval Chart for installation in accordance with the latest edition of NFPA 13 for extended coverage pendent spray sprinklers.

- Designed for use in Light Hazard occupancies only.
- The sprinkler must be installed in the pendent position in fixed fire protection systems (wet, dry, deluge, or preaction systems).
- 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 installation and obstruction rules contained in NFPA 13 for extended coverage pendent spray sprinklers must be followed.

IMPORTANT: Always refer to Bulletin Form No. F_091699 - Care and Handling of Sprinklers. Also refer to page QR1-2 or EC1-2 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.

- A. Sprinklers must be handled with care. They must be stored in a cool, dry place in their original shipping container. Never install sprinklers that have been dropped, damaged in any way, or exposed to temperatures in excess of maximum ambient temperature allowed. Such sprinklers should be destroyed immediately.
- B. Viking Institutional Quick Response Flush Pendent Sprinklers are not intended for use in corrosive environments. Use only sprinklers listed for corrosive environments when subject to corrosive atmospheres.
- C. Use care when locating sprinklers near fixtures that can generate heat. Do not install sprinklers where they will be exposed to temperatures that exceed the maximum recommended ambient temperature for the temperature rating used.
- D. Adequate heat must be provided when the Institutional Quick Response Flush Pendent Sprinkler is installed on wet-pipe systems.
- E. The sprinklers must be installed after the piping is in place to prevent mechanical damage. Before installing, be sure to have the appropriate sprinkler model and style, with the correct orifice size, temperature rating, and response characteristics. Install the sprinklers according to the following sequence:
 1. Install all piping and cut the sprinkler drop nipple so that the ½" (15 mm) NPT outlet of the reducing coupling is at the desired elevation and centered in a 2-1/4" (57.2 mm) diameter opening in the ceiling (due to lockring). Note: If the retaining flange assembly is to be used, slide the flange over the sprinkler drop nipple prior to threading the nipple into the branch line tee as shown in Figure 4-A.
 2. The internal diameter of the special Flush/Concealed Sprinkler Wrench is designed for use with the sprinkler contained in the protective plastic shell. With the sprinkler in the shell, apply a small amount of pipe-joint compound or tape to the external threads of the sprinkler only, taking care not to allow a build-up of compound in the sprinkler inlet.

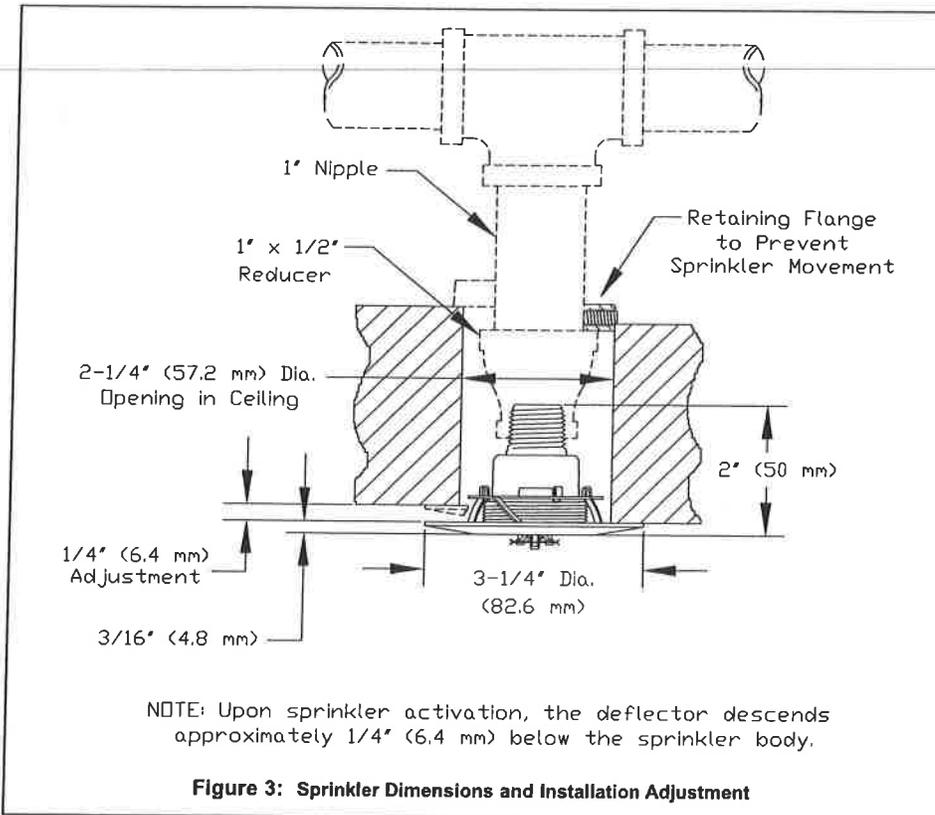
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3. Refer to Figure 4-B and use only Sprinkler Wrench 08336W/B or 10366W/B, which is designed for installing Viking Institutional Quick Response Flush Pendent Sprinklers. With the sprinkler in the plastic protective shell, place the unit into the wrench. **DO NOT** use the fusible link to start or thread the sprinkler into a fitting. Turn the unit clockwise to thread the sprinkler into the coupling, taking care not to over-tighten or damage the sprinkler operating parts.
- F. After installation, the entire system must be tested in accordance with recognized installation standards. The test is applied after sprinkler installation to ensure that no damage has occurred to the sprinkler during shipping and installation, and to make sure the unit has been 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.
- G. After testing, repairing all leaks, and installing and painting the ceiling, remove the plastic protective shell from the sprinkler. **INSTALLATION TIP:** Do NOT install the locking onto the sprinkler until after the sprinkler nipple has been cut back to ensure the sprinkler is at the desired elevation in relation to the face of the ceiling. The locking will prove difficult to remove from the sprinkler once it has been installed above the plane of the ceiling. Check final installation by temporarily installing the escutcheon plate onto the sprinkler without the locking, using Institutional Escutcheon Installation Wrench 10551W/B. If necessary, re-cut the sprinkler nipple as required. Once satisfied with sprinkler level compared to the surface of the ceiling, install locking and escutcheon plate following the steps below. The escutcheon plate cannot be removed after it has been installed with the locking, so do not install the escutcheon plate with the locking until after the system has been tested.
- H. As shown in Figure 4-C and D, fit the locking over the open end of the protective sprinkler shell and use the shell to gently press the locking over the threads of the sprinkler. The ring must rest against the two wrench ears of the sprinkler body with the four arms of the locking pointing outward.
- I. REMOVE THE PLASTIC PROTECTIVE SHELL from the sprinkler. (Recommendation: retain a protective shell in the spare sprinkler cabinet.)

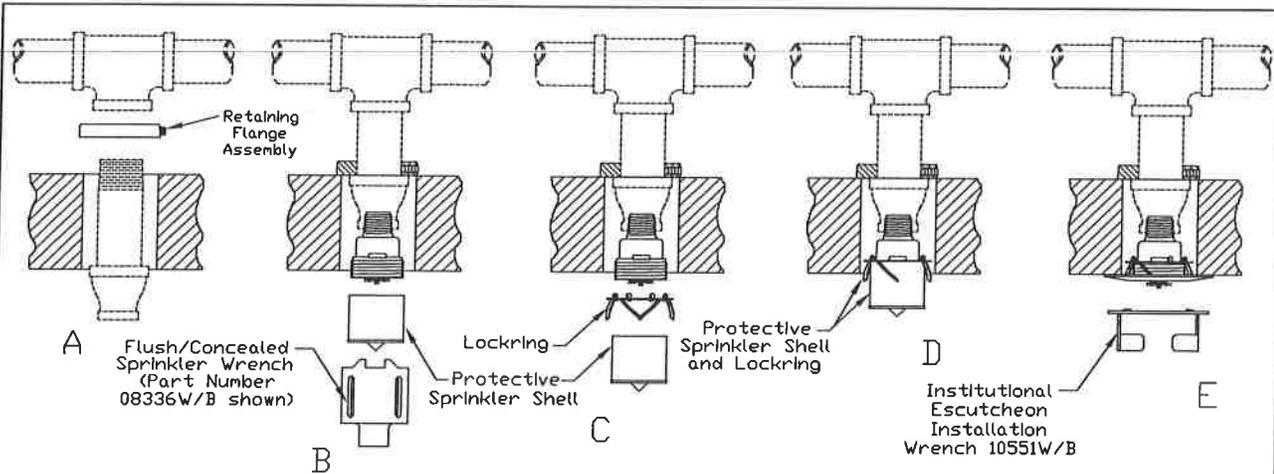
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INSTALLATION TIP:

Do not install the locking onto the sprinkler until after the sprinkler nipple has been cut back to ensure the sprinkler is at the desired elevation in relation to the face of the ceiling. The locking will prove difficult to remove from the sprinkler once it has been installed above the plane of the ceiling. Check final installation by temporarily installing the escutcheon plate onto the sprinkler without the locking, using the Institutional Escutcheon Installation Wrench. If necessary, re-cut the sprinkler drop nipple as required.

Once satisfied with sprinkler level compared to the surface of the ceiling, install locking and escutcheon plate following steps H through J below. The escutcheon plate cannot be removed after it has been installed with the locking, so do not install the escutcheon plate with the locking until after the system has been tested.

Figure 4: Sequence of Installation

- J. As depicted in Figure 4-E, use the Institutional Escutcheon Installation Wrench to screw on the escutcheon plate clockwise. The face of the escutcheon plate is equipped with four indentations to complement the design of the Institutional Escutcheon Installation Wrench 10551W/B and facilitate installation of the escutcheon plate. As the escutcheon plate is threaded onto the sprinkler body, the four arms of the locking must fully engage with the radial grooves on the inside of the escutcheon plate. Continue to thread the escutcheon plate onto the sprinkler body until the plate's flange fits tightly against the surface of the ceiling. Then, proceed to turn the escutcheon plate another 1/2 turn clockwise to ensure that it is secured to the ceiling. The arms of the locking are angled and designed to wedge into the coined radial grooves on the inside face of the escutcheon plate to keep the escutcheon plate from being unscrewed. Thus, an attempt to remove the escutcheon plate after installation is prevented. **DO NOT MODIFY THE UNIT.**
- K. The retaining flange, located behind the finished ceiling, must fit snug against the inner surface of the ceiling to prevent vertical movement of the assembly. Use a 1/8" hex wrench to tighten the retaining flange screw and secure the assembly into place to prevent it from being pulled through the ceiling.
- L. **DISASSEMBLY:** Refer to section 6. INSPECTIONS, TESTS AND MAINTENANCE, paragraph D. and follow all warnings and instructions.

5. OPERATION

The sprinkler is recessed into the mounting surface, flush to the ceiling, with only a portion of the fusible link assembly exposed beneath the ceiling. The concealed deflector is held inside the sprinkler body until the eutectic metal solder link is fused. When the sprinkler fuses, the deflector extends to discharge and distribute water. The multi-piece design allows the installation and testing of the institutional sprinklers prior to installation of the ceiling.

The special escutcheon plate on the Institutional Quick Response Flush Pendent Sprinkler assembly is the only ceiling ring that may be used with these institutional sprinklers, and all of these sprinklers must be installed with this escutcheon plate. Removal of the thread-on escutcheon plate is prevented by the locking.



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The sprinkler pipe above the ceiling leading to the sprinkler must be secured to prevent any movement of the sprinkler. One method of anchoring the pipe above the ceiling is to use the retaining flange and screw assembly that are available from Viking. The flange slides over the sprinkler drop nipple prior to threading the nipple into the branch line tee (see Figure 4-A).

6. INSPECTIONS, TESTS AND MAINTENANCE

(Refer to Figures 1-4.)

NOTICE: The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to NFPA 25 for Inspection, Testing and Maintenance requirements. In addition, the Authority Having Jurisdiction may have additional maintenance requirements that must be followed.

- A. The sprinklers must be inspected on a regular basis for corrosion, mechanical damage, obstructions, paint, etc. The frequency of inspections may vary due to corrosive atmospheres, water supplies, and activity around the device.
- B. Sprinklers that have been painted or mechanically damaged must be replaced immediately. Sprinklers showing signs of corrosion shall be tested and/or replaced immediately as required. Installation standards require sprinklers to be tested and, if necessary, replaced after a specified term of service. Refer to the installation standards and the Authority Having Jurisdiction for the specified period of time after which testing and/or replacement is required. Sprinklers that have operated cannot be reassembled or reused, but must be replaced. When replacing sprinklers, use only new sprinklers.
- C. The sprinkler discharge pattern is critical for proper fire protection. Nothing should be hung from the sprinkler, attached to it, or otherwise obstruct the discharge pattern. All obstructions must be immediately removed or, if necessary, additional sprinklers installed.
- D. When replacing existing sprinklers, the system must be removed from service. Refer to the appropriate system description and/or valve instructions. Prior to removing the system from service, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected area.

DISASSEMBLY: There are two methods of sprinkler disassembly. In Method 1, the escutcheon plate and lockring are removed first, and then the remaining sprinkler components can be removed without being destroyed. The second method of disassembly results in complete destruction of the unit.

Disassembly Method 1:

1. Remove the system from service, drain all water, and relieve all pressure on the piping.
2. Use a drill (not available from Viking) sized appropriately for use with a spanner wrench (see step 3) to make two holes through two opposite indentations on the face of the escutcheon plate.
3. Use a 2-1/2" C-C spanner wrench (Viking Part No. 10729) to unthread the escutcheon plate by turning it counterclockwise. Make sure that the sprinkler body does not turn or loosen.
4. Remove the lockring from the sprinkler body.
5. Place a protective sprinkler shell (from the spare sprinkler cabinet) over the sprinkler to be removed.
6. With the protective shell over the sprinkler, place Sprinkler Wrench 08336W/B or 10366W/B over the unit and turn it counterclockwise to carefully unthread the sprinkler body from the reducing coupling.
7. Install the new unit using the sprinkler wrench. Care must be taken to ensure that the replacement sprinkler is the proper model and style, with the appropriate orifice size, temperature rating, and response characteristics. A fully stocked spare sprinkler cabinet should be provided for this purpose. (Stock of spare lockrings and escutcheon plates should be available in the spare sprinkler cabinet in addition to the spare sprinkler heads.)
8. Place the system back in service and secure all valves. Check for and repair all leaks.

NOTE: Disassembly Method 1 results in damage to the escutcheon plate and lockring, and they cannot be reused.

Disassembly Method 2:

1. Remove the system from service, drain all water, and relieve all pressure on the piping.
2. Disassemble and remove the fusible element, and bend the deflector and sealing assembly to expose the waterway of the sprinkler.
3. Insert an easy-out screw extractor (Trade No. 6) into the waterway. Turn the easy-out counterclockwise with a wrench to remove the sprinkler assembly from the reducing coupling.

NOTE: Disassembly Method 2 results in complete destruction of the unit. None of the sprinkler components may be reused.



The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058

Telephone: 269-945-9501 Technical Services 877-384-5464 Fax: 269-945-4495 Email: techsvcs@vikingcorp.com

4. Install the new unit using Sprinkler Wrench 08336W/B or 10366W/B. Care must be taken to ensure that the replacement sprinkler is the proper model and style, with the appropriate orifice size, temperature rating, and response characteristics. A fully stocked spare sprinkler cabinet should be provided for this purpose. (Stock of spare lockrings and escutcheon plates should be available in the spare sprinkler cabinet in addition to the spare sprinkler heads.)
 5. Place the system back in service and secure all valves. Check for and repair all leaks.
- E. Sprinkler systems that have been subject to a fire must be returned to service as soon as possible. The entire system must be inspected for damage and repaired or replaced as necessary. Sprinklers that have been exposed to corrosive products of combustion or high ambient temperatures, but have not operated, should be replaced. Refer to the Authority Having Jurisdiction for minimum replacement requirements.

7. AVAILABILITY

Viking Sprinkler VK410 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.

9. DISCLAIMER

THE VIKING CORPORATION DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES OR INJURY (INCLUDING DEATH) CAUSED BY THE OPERATION OR INOPERATION OF SPRINKLERS ARISING OUT OF THE MISUSE OF OR TAMPERING WITH VIKING® BRAND SPRINKLERS INCLUDING, WITHOUT LIMITATION, ANY PERSONAL INJURY OR DEATH ARISING OUT OF OR CAUSED BY THE MANIPULATION OF, DISMANTLING OF, OR ATTEMPTED USE OF THE SPRINKLER OR ANY COMPONENT AS AN INSTRUMENT UNRELATED TO ITS INTENDED USE.



**CITY OF ST. LOUIS
DEPARTMENT OF FINANCE
OFFICE OF THE SUPPLY COMMISSIONER**

FREDDIE L. DUNLAP
SUPPLY COMMISSIONER

FRANCIS G. SLAY
MAYOR

1200 MARKET STREET
ROOM 324
ST LOUIS, MO 63103-2819
(T): (314) 622-4580
(F): (314) 622-4141

ATTENTION BIDDERS

Please carefully review all information requested in this bid package.

Failure to submit requested samples, literature or any other requested information may result in disqualification of your bid or any portion of your bid.

Also the reasons indicated below may disqualify your bid. If you have any questions, call the buyer indicated in this bid package.

This form must be returned with your bid.

- Two or more bids submitted for one item, unless instructed to do so. (item rejected)
- Signature missing on bid or any required form.
- Buy American Form not completed or returned. (may be rejected)
- M/WBE Form not completed or returned. (may be rejected)
- Altered or erased unit prices must be initialed.
- Faxed bid, unless specifically requested (will be rejected).

- FOR CONTRACTS ONLY: Please provide your DUNS # _____
- FOR CONTRACTS ONLY: Failure to submit required Bond by the date indicated.

I certify that I have read and understand the information above.

Manual Signature

Date

ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT

The City of St. Louis has enacted an ordinance relating to the purchase of domestic products by City government, with penalty provisions. The ordinance amends Section 5.58.010 Revised Code of the City of St. Louis, 1986, as amended by adding thereto new subsections dealing with the requirement that the Supply Commissioner or his designee give preference to goods or commodities manufactured in the United States of America, stating exceptions to said policy. Sections one through six are reprinted below.

Section One. Section 5.58.010 Revised Code of the City of St. Louis is hereby amended by adding the following language: Each solicitation to bid and the method of describing the items to be bid upon of any goods or commodities sought to be purchased by the Office of Supply Commissioner, and any contract entered into by and on behalf of the City of St. Louis and executed by the Mayor and/or the Comptroller of the City of St. Louis wherein the construction, alteration, repair or maintenance of any public works is the subject of the contract so executed, shall contain a provision that the goods or commodities furnished or used in the furtherance of said project by any contractor or subcontractor, manufacturer or supplier as the case may be, shall be manufactured, assembled or produced in the United States, and said requirement as defined above shall be stated in said bid.

Section Two. The provision of Section One of this Ordinance shall not apply in the following instances:

- (i) Where the item purchased as the contract entered into for repairs or renovation is less than One Thousand (\$1,000.00) Dollars.
- (ii) Where no line of a particular good or product is manufactured, assembled or produced in the United States.
- (iii) Where the acquisition of United States manufactured or produced goods would increase the cost by more than (10%) percent.

Section Three. The certificate required by this section shall specify the nature of the contract, the product being purchased or leased, the names and addresses of the United States manufacturers and producers contracted by the Commissioner or the project architect or engineer, and an indication that such manufacturers or producers could not supply sufficient quantities or that the price of the products would increase the cost of the contract by more than ten percent.

Section Four. No public agency may authorize, provide for, or make any payment to any vendor or contractor upon any contract in violation of section 2 of this act. Prior to the awarding of the bid and before any public agency authorizes, provides, or makes payment to any vendor or contractor upon any contract to which section 2 or 6 of this act applies, the vendor or contractor shall provide proof of compliance with section 2, and, if applicable, section 6 of this act. Any vendor or contractor who knowingly misrepresents any material fact to the public agency concerning the origin of any manufactured goods or commodities shall be guilty of a Class A misdemeanor.

Section Five. Sections 1 to 6 of this act shall apply only to contracts and subcontracts entered into after the effective date of this act, and shall not limit the use or supply of manufactured goods or commodities purchased or leased prior to the effective date of this act.

Section Six. Nothing in sections 1 or 6 of this act is intended to contravene any existing treaty, law, agreement, or regulation of the United States. All contracts under section 1 or 6 of this act shall be entered into in accordance with existing treaty, law, agreement, or regulation of the United States including all treaties entered into between foreign countries and the United States regarding export-import restrictions and international trade and shall not be in violation of sections 1 to 6 of this act to the extent of such accordance.

Interpretations and Guidelines

Section One: "Shall be manufactured" is interpreted to mean to make or process a raw material into a finished product or to turn-out in a mechanical manner. "Assembled" is interpreted to mean to fit or to join together the parts, gather, or to congregate in a manufacturing environment. "Produced" is interpreted to mean to create by manual or physical effort, to make or yield to customary product or products.

Section Two (I) This is interpreted to mean less than one thousand dollars in aggregate (total purchases).

(iii) When applying this subsection, multiply the cost of the foreign product by ten percent and compare the cost to the American product. If the American product cost is less than the sum of the cost of the foreign product plus ten percent, the award will be made to the vendor bidding the American product. The price paid by the City of St. Louis will be the actual price bid by the winning bidder.

Section Three: "Could not supply sufficient quantities" is interpreted to mean in order to meet the using agency's delivery schedule and in quantity specified.

Section Four: The vendor's authorized representative must complete a self-certification form, as required by the existing procedures previously indicated. These certification forms will be used to determine whether the manufacturer or producers could, or could not supply sufficient quantities, or the cost of the products would increase the contract by more than ten percent.

Prior to the City awarding the bid, the vendor shall provide certification that the product being bid is manufactured, assembled or produced in the United States or there is an existing treaty, law or regulation whereby the product bid shall be treated the same as product manufactured, assembled or produced in the United States. The procuring agency shall accept the self certification in order to apply the percentage differential that is applicable under this law. Failure to provide certification shall cause the city to presume that such product is not American made and preference shall not be considered for that product.

CERTIFICATION FORM ST. LOUIS DOMESTIC PRODUCTS PROCUREMENT ACT (BUY AMERICAN)

Bidders are advised of legislation enacted by the City of St. Louis which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured, assembled or produced in the United States, unless obtaining American made products would increase the cost of this contract by more than ten percent.

Section Four requires the vendor or contractor to certify his compliance with this legislation and if applicable, Section Six, if preference is claimed.

This legislation does not apply if the total bid is less than one thousand dollars (\$1,000.00).

Bids received will be evaluated on the basis of this legislation. Certificates of compliance must be completed and returned to be considered for preference. Failure to provide certification shall cause the City to presume that such product is not American made.

CERTIFICATION

If **all** the specified goods or products are manufactured, assembled or produced in the United States, check box at left and complete certification at the bottom of this form.

SECTION SIX CERTIFICATION

If any or all of the specified goods or products are manufactured, assembled or produced in a country other than the "United States", and exemption is requested because such product is Fair Trade Product: (a) list the country, other than the United States, where each good or product you propose to furnish is manufactured, assembled or produced; (b) check box at left of this paragraph and list corresponding commodities and (c) complete Section Six Documentation portion below.

Item Number(s)

Location Where Item Manufactured, Assembled or Produced

SECTION SIX DOCUMENTATION

The specified goods or products are treated as manufactured, assembled or produced in the United States under an existing treaty, law, agreement or regulation of the United States regarding export-import restrictions and international trade. List item Number(s) and Treaties covering item below.

DEFINITIONS

- MANUFACTURED** - to make or process a raw material into a finished product; create, or to produce or to turn-out in a mechanical manner.
- ASSEMBLED** - to fit or join together the parts in a manufacturing environment.
- PRODUCED** - create by manual or physical effort, to make or yield the customary product or products.

MUST BE COMPLETED AND SIGNED

I hereby certify that the above information is true and correct and further certify that this statement complies with all provisions of Section 5.58.010 Revised Code of the City of St. Louis, 1985, as amended.

FIRM NAME: _____

ADDRESS: _____

CITY: _____ **STATE:** _____ **ZIP:** _____

BY: _____

(SIGNATURE and TITLE)

**CITY OF ST. LOUIS/SUPPLY DIVISION
MINORITY/WOMEN BUSINESS ENTERPRISES FORM
(M/WBE FORM)**

A. Mayor's Executive Order #28, Section Six - Supply Contracts

1. The goal of the City of St. Louis is that 25% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Minority Business Enterprises (MBEs) and that 5% of the value of all contracts let and purchases made by the Supply Commissioner shall be let or made with Women's Business Enterprises (WBEs).
2. All contracts let by the Supply Division for the purchase or lease of materials, equipment, supplies, commodities or services, the estimated cost of which exceeds \$500, shall be subject to this goal.
3. The methods by which the Supply Commissioner shall pursue this goal shall include but not be limited to the following:
 - a. The Supply Commissioner shall solicit bids from minority business enterprises and women's business enterprises certified to supply the required materials, equipment, supplies or services;
 - b. St. Louis Airport Authority (SLAA) shall provide the Supply Commissioner with a list of minority business enterprises and women's business enterprises qualified to provide each of those commodities that the Supply Commissioner indicates are required by the City;
 - c. The Supply Commissioner shall notify SLAA prior to solicitation of bids whenever no such qualified businesses are available;
 - d. SLAA shall attempt to identify such qualified businesses, and if successful, shall notify the Supply Commissioner of their availability; and
 - e. The Supply Commissioner shall provide such minority business enterprises and women's business enterprises every practical opportunity to submit bids.
4. Joint ventures or mentor-protégé relationships between prime contractors and subcontractors with local MBE and WBE firms are encouraged.
5. Participation of MBE and WBE firms located outside the St. Louis Metropolitan Statistical Area (SMSA) shall not count toward the goals established in this order.

B. SUPPLY DIVISION POLICY

It is the policy of the Supply Division that all bids/contracts awarded adhere to the Mayor's Executive Order #28. All vendors are encouraged to comply with this policy and all other provisions of Executive Order #28. A copy of Executive Order #28 is available upon request. Each Vendor/Contractor (bidder) must complete, sign and return this M/WBE Form. Failure to complete, sign and return the M/WBE Form will result in the bid being declared non responsive and your bid may be eliminated.

C. OBLIGATION

The bidder agrees to make a good faith effort to ensure that M/WBE businesses have an opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with City funds. The bidder will take all necessary and reasonable steps to ensure that said businesses have an opportunity to compete for and perform under this bid/contract. The bidder shall not discriminate on the basis of race, color, national origin or sex in the award and performance of bids/contracts. The Directory of Disadvantaged, Minority and Women Owned Business Enterprises certified by the City of St. Louis, can be viewed at www.mwdbe.org.

**CITY OF ST. LOUIS/SUPPLY DIVISION
MINORITY/WOMEN BUSINESS ENTERPRISES FORM
(M/WBE FORM)**

D. BID/CONTRACT IDENTIFICATION

Bid #: _____ or Contract Name: _____ Opening Date: _____ Your Bid Total: \$ _____ If your bid is \$500 or higher, please complete Section 'E'. We are NOT requesting information on how your company currently supports M/WBE suppliers. We want to know if there are opportunities you might consider to work with M/WBE suppliers for THIS SPECIFIC bid/contract.

E. ASSURANCE MBE/WBE Goal: 25% MBE and 5% WBE (Minimum Participation)

I, acting in my capacity as an officer of the undersigned bidder(s) if a joint venture, hereby assure the City of St. Louis that on this bid/contract my company will: **(CHECK ONLY ONE)**

Meet or exceed the M/WBE goal with: _____% MBE and _____% WBE Participation

Proposed MBE Vendor Name: _____ Amount \$ _____ Item or materials to be supplied by MBE Vendor: _____ Proposed WBE Vendor Name: _____ Amount\$ _____ Item or materials to be supplied by WBE Vendor: _____

Fail to meet the M/WBE goal, but made a good faith effort to meet the goals as follows:

_____ % MBE and _____ % WBE Participation (Enter Proposed Vendor information above.)

Not meet the M/WBE goal for the following reasons(s): (Check All That Apply)

	Our Company is an MBE certified by the State of: _____
	Our Company is a WBE certified by the State of: _____
	We have contacted suppliers listed in the SLAA Directory but have received no reply
	There are no subcontracting opportunities for this bid/contract
	We are a Dealer and the order will be drop-shipped from the manufacturer to the user
	We are the manufacturer and the order will be drop-shipped from the factory to the user
	A letter of explanation is attached
	Other reason: _____ _____

FIRM NAME: _____ FEDERAL ID NUMBER: _____
 SIGNATURE: _____ FAX NUMBER: _____
 PRINTED NAME: _____ DATE: _____
 TITLE: _____ E-MAIL: _____

CITY OF ST LOUIS, MISSOURI
INSTRUCTION TO BIDDERS (for request for quotations - RFQs)

VENDORS SHOULD CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND TERMS AND CONDITIONS, BEFORE SUBMITTING QUOTATION. **CAUTION: THIS IS NOT AN ORDER**

- Quotations will only be accepted on this form which must be returned in a **sealed envelope**. *The upper left corner of the envelope must include the following information: Vendor Name, Quotation Number and the Due By Date.* This information is also required on any mail delivered next day or overnight.
- Quotations should be typewritten or in ink. Altered or erased unit price(s) must be initialed. One copy of Quotation Sheet must be submitted, please retain a copy for your files.
- The Supply Commissioner reserves the right to reject any or all bids.
- The Supply Commissioner reserves the right to make awards on an item basis or on a total basis.
- Bidders must quote Unit Price(s) and Extension on each item. When an error appears on an extension, the Unit Price(s) will govern.
- When Quotation Sheet requests item(s) by brand name and your quote is for an alternate brand – show brand name(s) with model number(s) and attach full specifications.
- When Quotation Sheet has only a general description(s) of item(s) required – show brand name with model number(s) and attach full specifications.
- Suppliers shall not offer more than one bid on each item. Two or more quotations on the same item may cause a rejection of the bid. Suppliers must determine which one of their many styles or types fully meet the specification.
- Freight or delivery charges must be included in quote, or shown separately on quote, so bid can be evaluated.
- **Bids must arrive no later than NOON** on the date stated or will be rejected. Faxed or E-mailed bids are not accepted unless specifically requested.
- Bids will be publicly opened on the date specified beginning at NOON.
- Prices quoted will be considered firm.
- Bids having an acceptance limit of less than 30 days after opening date may be rejected.
- Time of proposed delivery must be stated in definite terms.
- Failure of Bidder to understand the item(s) requested or any part of the specifications will not be a valid reason for bidding on the wrong item(s). Any questions regarding description of item(s) requested should be cleared with the Buyer listed in the bid document.
- **Samples** when requested must be delivered before actual time of bid opening with each sample plainly tagged showing the name of Bidder, Quotation Number, Brand Name and lot number or quality. Submission of samples does not relieve bidder from meeting the specifications as outlined in the Bid Documents unless the bidder specifically states they are bidding on an alternate.
- All samples are to be submitted to the address listed below unless otherwise stated in Bid Documents.
- Deliveries must be accompanied by a packing slip or invoice, listing the Department, Quotation Number, and the exact quantities of each item included in the shipment.
- ONLY U.S.P., N.F., OR N.N.D. DRUGS ARE ACCEPTABLE. ALL DRUGS MUST COME IN MANUFACTURER'S ORIGINAL PACKAGES, PROPERLY SEALED.
- In the event the successful bidder fails to make delivery of any item or items that meet the conditions and requirements as outlined in this proposal within 7 days of time stated by bidder on face of this quotation sheet, the City reserves the right to purchase said item or items on the "OPEN MARKET" and charge any costs above the BID PRICE to the bidder.
- The laws of the State of Missouri provide that the City of St. Louis pay no State Sales or Use Tax or Federal Excise Taxes and these taxes should be excluded from your bid price. Federal Excise Tax Exemption Certificates will be furnished to successful bidder.
- Suppliers shall save harmless the City of St. Louis from the payment of any and all claims or demands arising out of any infringement, alleged infringement, or use of any patent or patented device, article, system, arrangement, material or process used by him in the execution of this contract.
- Supply Division hours are Monday through Friday – 8:00 A.M. to 5:00 P.M. Main Number: 314-622-4580.

All bids must be submitted in a SEALED ENVELOPE and mailed to:

SUPPLY COMMISSIONER
1200 MARKET ST RM 324
ST LOUIS MO 63103-2842