



## TECHNICAL DATA

### TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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](http://www.vikinggroupinc.com)

### 1. DESCRIPTION

TRIMPAC® is a factory assembled trim package for a Flow Control System with an electric release module in a metal enclosure. The standard trim normally required on a Flow Control System has been preassembled into a single cabinet. TRIMPAC® provides access doors for the Emergency Release (B.1) and Alarm Test Valve (B.7) for manual operation of these trim valves. TRIMPAC® is equipped with priming water pressure and water supply gauge view-ports for easy monitoring of water pressures, and with a monitored solenoid (NC) or a non-monitored solenoid (NO). TRIMPAC® eliminates the installation of alarm trim piping and release trim piping at the Flow Control Valve (A.1). The enclosure protects trim valves from inadvertent operation. Piping (or optional stainless steel hose package) from the valve body to the enclosure assembly allows the assembly to be installed remote of the sprinkler system riser. A valve drain package is required and is ordered based on the flow control valve size. See Figures 11 and 12 for drain trim charts.



### 2. LISTINGS AND APPROVALS

**UL listed:** VLTR & VLTR7

**FM Approved:** Deluge Sprinkler Systems



**WARNING:** Cancer and Reproductive Harm-  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

### 3. TECHNICAL DATA

#### Specifications:

Rated Water Working Pressure: 250 PSI (17.2 bar)

Gauges: 0-300 PSI (0-20.7 bar)

Weight: 34 lbs. (15.4 kg.)

Dimensions: 16-1/8" (409 mm) high x 29-1/8" (748 mm) wide x 8-25/32" (223 mm) deep

#### Material Standards:

Enclosure: 16 gauge steel, painted Red: Epoxy Powder Coat

Solenoid Valves (1 NO, 1 NC): Brass Body 1/2" (1.27 cm), 24 Volt DC, 250 PSI (17.2 bar) NEMA Rated 1, 2, 3, 3S, 4 or 4X, 9 Watt

Ball valves: 1/2" NPT female ends

Strainer: Brass Body, 1/2" NPT inlet and outlet, 50 mesh stainless steel screen

Restricted Orifice: Brass Body, 1/2" NPT male inlet and outlet, 0.0625" orifice

Spring Loaded Check Valve: Brass Body, 1/2" NPT female inlet and outlet

Drain Check Valve: Brass Body, 1/2" NPT female inlet and outlet, EPDM clapper rubber

Hoses (4): Flexible braided stainless steel hoses with steel fittings and connectors, PTFE lined

Drain Hose (1): PVC Hose 60" long with brass hose connector x 1/2" NPT

Trim Piping: 1/2" Galvanized or 1/2" Brass

Fittings: 1/2" Galvanized

**Ordering Information: Refer to Table 1.**

#### Accessories:

a. Vertical Mounting Plate Kit - Part No. 11900

b. Horizontal Mounting Plate Kit - Part No. 11901

c. Hose Assembly Kit (Includes (4) Stainless Steel Hoses and (1) PVC Drain Hose) - Part No. 12072

d. Individual 5'-0" Stainless Steel & PTFE Hose: Part No. 16558 (4) (included with Part Nos. 12252C-1 and 12252C-1B)

e. Individual PVC Hose: Part No. 12071 (1) (included with Part Nos. 12252C-1 and 12252C-1B)



## TECHNICAL DATA

### TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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](http://www.vikinggroupinc.com)

#### 4. INSTALLATION (Refer to Figures 3 - 10 for identification of trim components. Refer to Figure 11 for wall-mounting.)

1. TRIMPAC® Trim Assemblies may be installed with the straight-through style Model J flow control valve in sizes 1-1/2", 2", 2-1/2", 3", 4", 6", and 8".
2. The TRIMPAC® trim assembly and valve must be installed in an area not subject to freezing.
3. The TRIMPAC® trim assembly must be installed to facilitate drainage.
4. The TRIMPAC® trim assembly must be installed above the elevation of the Drip Check Valve (C.2).
5. The TRIMPAC® can be installed with the hose package or 1/2" non-corrosive metallic piping. The maximum distance the TRIMPAC® may be installed away from the Flow Control Valve (A.1) is 5'-0".
6. The Flow Control Valve (A.1) equipped with TRIMPAC® must be installed in accordance with Viking technical data. The required drain package must be installed in accordance with Figures 11 and 12.
  - a. Remove all plastic thread protectors from the openings of the Flow Control Valve (A.1) and the TRIMPAC® trim assembly.
  - b. Apply a small amount of pipe-joint compound or tape to the external threads of all pipe connections required. Take care not to allow any compound, tape, or other foreign matter inside any of the nipples or openings of the valve or trim components.
  - c. Verify that all system components are rated for the water working pressure of the system.

#### Hydrostatic Test:

The Viking Flow Control Valve (A.1) is manufactured and listed for use at a maximum Water Working Pressure of 250 PSI (17.2 bar). The valve is factory tested at 500 PSI (34.5 bar). The Viking Flow Control Valve (A.1) may be hydrostatically tested at 300 PSI (20.7 bar) and/or 50 PSI (3.5 bar) above the normal Water Working Pressure, for limited periods of time (2 hours) for the purpose of acceptance by the Authority Having Jurisdiction. If air testing is required, DO NOT exceed 40 PSI (2.8 bar) air pressure.

**Trim Note:** (Refer also to System Data and/or Trim Chart.)

Discharge piping from the Auxiliary Drain Valve (C.1), the Flow Test Valve (C.4), and all system drains should be kept separate. DO NOT connect the outlet of the Drip Check (C.2) to any other drain.

7. Placing The System In Service (Refer to Figures 3 - 10.)
  - a. Verify:
    - i. The system Main Water Supply Control Valve (E.1) is closed and the Flow Control Valve (A.1) is trimmed according to current Viking Trim Charts and schematic drawings for the system used.
    - ii. The system has been properly drained.
    - iii. The Auxiliary Drain (C.1) is open.
    - iv. The Emergency Release (B.1) is closed. **Note:** The Emergency Release (B.1) is closed when the handle is in line with the pipe. This allows the door to close when the valve is in the normal position.
    - v. The system water supply piping is pressurized up to the closed Main Water Supply Control Valve (E.1) and the priming line is pressurized up to the closed Priming Valve (B.2).
  - b. Open the Flow Test Valve (C.4).
  - c. Partially open the Main Water Supply Control Valve (E.1).
  - d. When full flow develops from the Flow Test Valve (C.4), close the Flow Test Valve.
  - e. Verify that there is no flow from the open Auxiliary Drain (C.1).
  - f. Close the Auxiliary Drain (C.1).
  - g. Fully open and secure the Main Water Supply Control Valve (E.1).
  - h. Verify that the Alarm Shut-off Valve (B.10) is open and that all other valves are in their normal operating position.
  - i. Depress the plunger of Drip Check (C.2). No water should flow from the Drip Check (C.2) when the plunger is pushed.
  - j. Check for and repair all leaks.
  - k. On new installations, those systems that have been placed out of service or where new equipment has been installed, trip test the system to verify that all equipment functions properly. Refer to the Flow Control Valve (A.1) data page for maintenance of the valve.

#### **CAUTION**

Operation of Viking flow control valve by pressurizing the priming chamber with air pressure or any other pressurized gas is not recommended or approved.

- l. After completing a trip test, perform SEMI-ANNUAL maintenance.

**NOTE:** For Flow Control Valves (A.1) installed on Viking Firecycle® Systems, refer to Firecycle® technical data.



## TECHNICAL DATA

### TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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](http://www.vikinggroupinc.com)

**Automatic Resetting** (Refer to Figures 3 - 10 for identification of trim components.)

- m. To automatically reset the Flow Control Valve (A.1) after it has operated:
  - i. DO NOT close the water supply main control valve (E.1). The priming valve (B.2) must be OPEN.
  - ii. Automatically or manually reset the electric release system.
  - iii. System supply pressure will enter the priming chamber through the restricted priming line connected to the priming chamber inlet.
  - iv. When the combined force of spring pressure and system supply pressure entering the priming chamber overcomes the velocity pressure of water flowing through the valve, the clapper will close.
  - v. Flow through the valve will stop.
  - vi. To reactivate the system, open a releasing device. Priming water will escape from the priming chamber faster than it is replaced through the restricted priming line, allowing the Flow Control Valve (A.1) to open.
- n. Valve Removed From Service.

**NOTE: When a valve has been removed from service and is subject to freezing or will be out of service for an extended period of time, all water must be removed from the priming chamber, trim piping, water supply piping and other trapped areas.**

## 5. OPERATION (Refer to Figures 3 - 10.)

The flow control Valve (A.1) has an inlet chamber, an outlet chamber, and a priming chamber. The inlet chamber and outlet chamber are separated from the priming chamber by the clapper and diaphragm. System pressure enters the priming chamber through a restricted priming line (trim) equipped with a check valve. In the SET position, system pressure is trapped in the priming chamber to hold clapper on seat due to area differential of the clapper, and spring pressure. The clapper separates the inlet from the outlet, keeping the system piping dry.

### In fire conditions:

When the release system operates, pressure is released from the priming chamber faster than it is supplied through the restricted priming line. Water supply pressure in the inlet chamber forces the clapper off from seat, allowing water to flow through the outlet and into the system piping and alarm devices. To automatically reset, flow of water out of the priming chamber is stopped. This can be done manually (by closing a valve in the hydraulic release piping), or electrically (by closing a solenoid valve in the hydraulic release piping). When the combined force of spring pressure and system supply pressure entering the priming chamber overcomes the velocity pressure of water flowing through the valve, the clapper will close. Flow through the valve will stop. To return the system to "Normal" conditions, drain the system piping and replace any sprinklers that may have operated. Replace any releases that have been damaged. Re-establish system air pressure by following the steps in the INSTALLATION section, Step 7 (Placing the System in Service).

## 6. INSPECTIONS, TESTS, AND MAINTENANCE

It is imperative that the system is inspected and tested on a regular basis. The frequency of the inspections may vary due to contaminated water supplies, corrosive water supplies, or corrosive atmospheres. Also, the alarm devices, detection systems, or other connected trim may require a more frequent schedule. For minimum maintenance and inspection requirements, refer to NFPA 25. In addition, the Authority Having Jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed. Refer to the specific Viking Flow Control Valve (A.1) data page for periodic testing.

### Maintenance:

TRIMPAC® should be inspected, tested, and maintained in accordance with the latest edition of NFPA 25, The Standard for Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, and in accordance with the Authority Having Jurisdiction.

### NOTICE

**The owner is responsible for maintaining the fire protection system and devices in proper operating condition. The flow control valve must be kept from freezing conditions and physical damage that could impair its operation. Contact the valve manufacturer or authorized representative when performance difficulty occurs and field adjustment is needed.**

### WARNING

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



## TECHNICAL DATA

### TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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](http://www.vikinggroupinc.com)

#### After Each Operation:

1. Sprinkler systems that have been subjected 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.
2. Flow Control Valves (A.1) and TRIMPAC® that have been subjected to brackish water, salt water, foam, foam/water solution, or any other corrosive water supply should be flushed with good quality fresh water before being returned to service. Refer to specific Flow Control Valve (A.1) for a maintenance schedule.

#### 7. AVAILABILITY

The Viking TRIMPAC® is available through a network of domestic and international distributors. See the Viking Corp. Web site for 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.

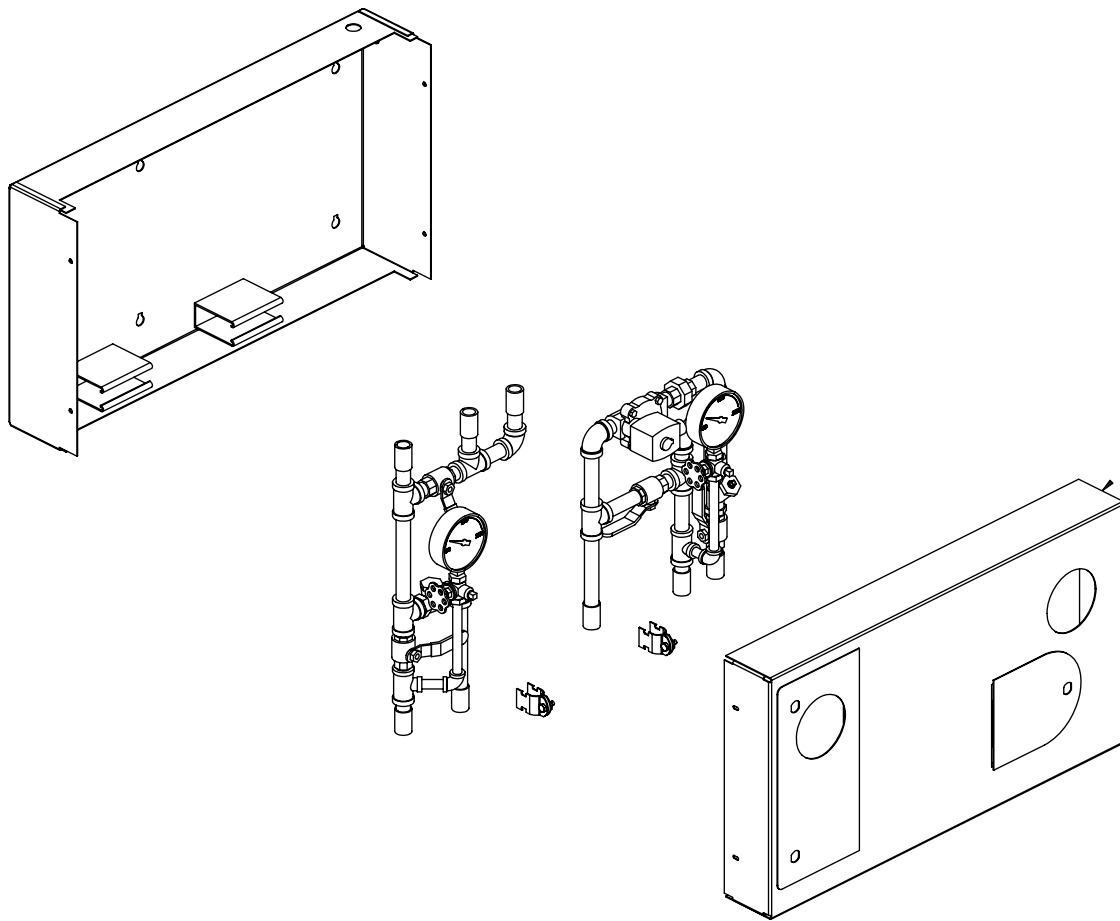


Figure 1 - Isometric View



# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

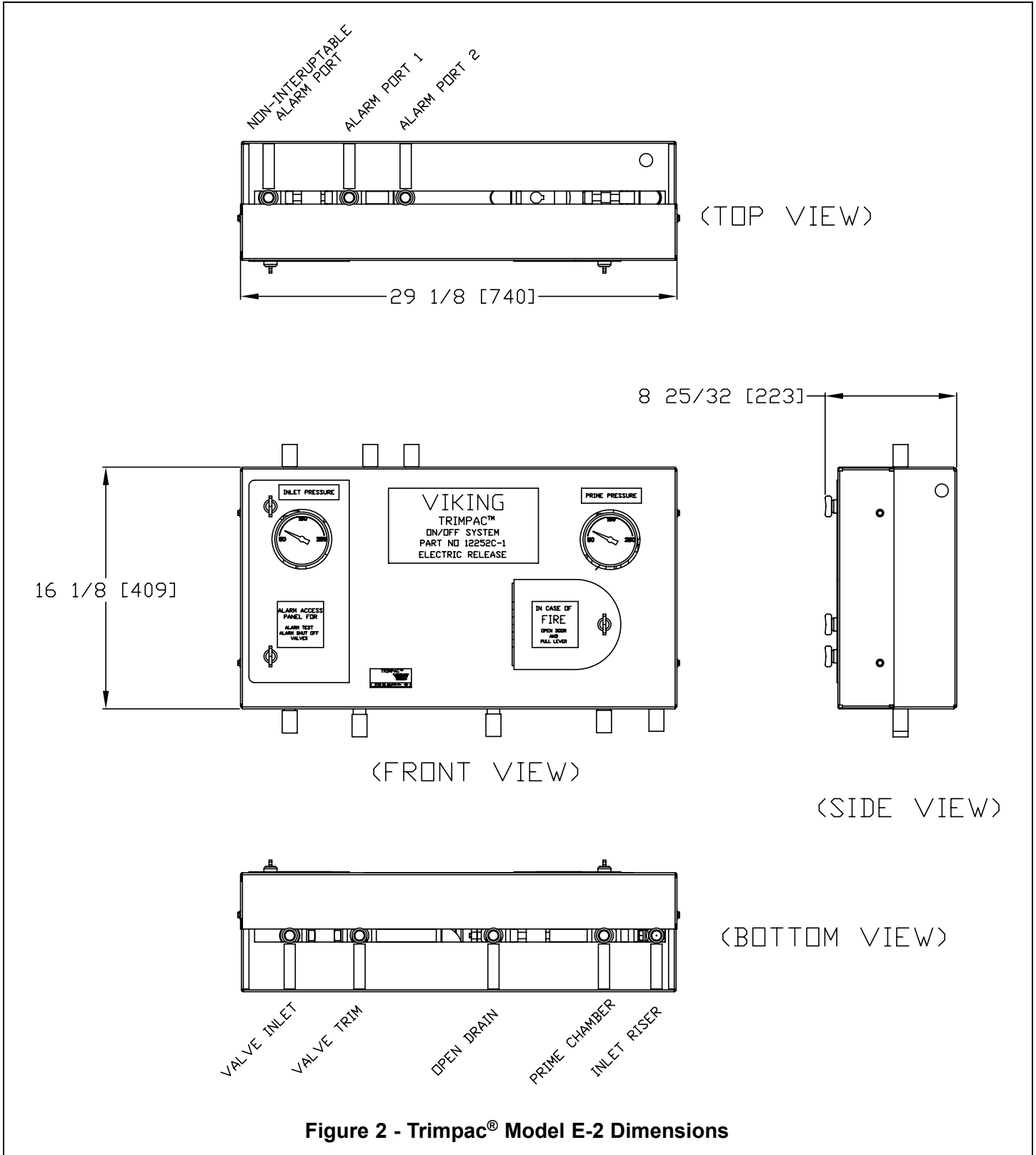


Figure 2 - Trimpac® Model E-2 Dimensions



# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

### Ordering Information

Component	Description	Part Numbers	Corresponding Data Pages										
<b>System Valve</b>													
A	A.1 Flow Control Valve	Various	F_040304, F_040402, F_040404, F_040502										
B	<b>Trimpac</b>	12252C-1 (Galvanized)	-										
		12252C-1B (Brass)											
		28207C-1*											
		28207C-1B*											
*Note: Monitored solenoid option: Each of the above configurations can be ordered with a monitored or non-monitored release solenoid. The monitored solenoid is a new option, which offers an NFPA 13 solenoid monitoring-compliant solution.													
B.1 - B.12	Trimpac Components	Refer to Figure 10.											
<b>Trimpac Drain Package</b>													
C	C.1 Auxiliary Drain Valve (NC)	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><b>Galv.</b></td> <td style="text-align: center;"><b>Brass</b></td> </tr> <tr> <td>1-1/2" - 11894-1 or 11894-5</td> <td></td> </tr> <tr> <td>2" - 11894-2 or 11894-6</td> <td></td> </tr> <tr> <td>2-1/2" &amp; 3" - 11894-3 or 11894-7</td> <td></td> </tr> <tr> <td>4", 6", &amp; 8" - 11894-4 or 11894-8</td> <td></td> </tr> </table>	<b>Galv.</b>	<b>Brass</b>	1-1/2" - 11894-1 or 11894-5		2" - 11894-2 or 11894-6		2-1/2" & 3" - 11894-3 or 11894-7		4", 6", & 8" - 11894-4 or 11894-8		-
	<b>Galv.</b>		<b>Brass</b>										
	1-1/2" - 11894-1 or 11894-5												
	2" - 11894-2 or 11894-6												
2-1/2" & 3" - 11894-3 or 11894-7													
4", 6", & 8" - 11894-4 or 11894-8													
C.2 Drip Check Valve													
C.3 Drain Cup													
C.4 Flow Test Valve (NC)													
<b>Water Flow Alarm Equipment</b>													
D	D.1 Alarm Pressure Switch	PS-10	-										
	D.2 Water Motor Alarm (F-2) (Optional)	07862	F_082789										
	D.3 Strainer	01489A	-										
	D.4 Electric Alarm Bell	-	-										
<b>Riser</b>													
E	E.1 Water Supply Control Valve	-	-										
<b>Release System</b>													
F	F.1 Model VFR-500 Release Panel	26107	F_081022										
	F.2 Electrical Detection System (Heat Detector Shown for Clarity)	Various	-										
<b>Table 1 - Trimpac System Components</b>													
Refer to Figures 3 through 10 for component identification.													





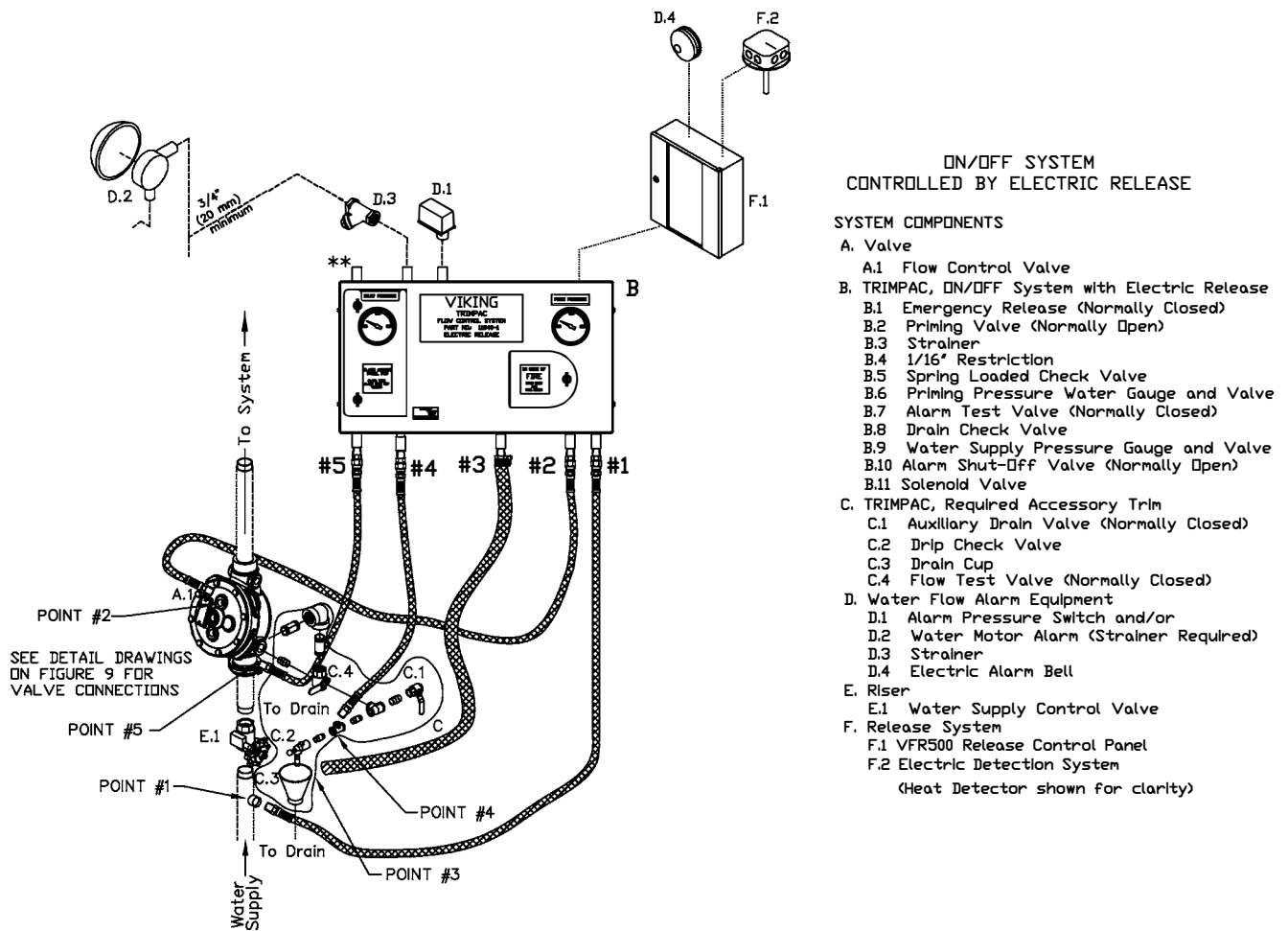
# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

### Legend for Figures 3 - 10

- ..... Dotted lines indicate electrical system wiring required but not listed in "System Components" Table. For additional wiring requirements refer to technical data for components used.
- Dashed lines indicate pipe required but not included with TRIMPAC trim packages. Minimum 1/2" nominal piping recommended.
-  Smaller diameter hoses are the (4) included flexible braided stainless steel hoses. Also available as a kit (P/N) 12072
-  Larger diameter hose is the included PVC Drain Hose. Also available separately (P/N 12071).
- \*\* 1/2" (15 mm) NPT for non-interruptible Alarm Pressure Switch (Optional)



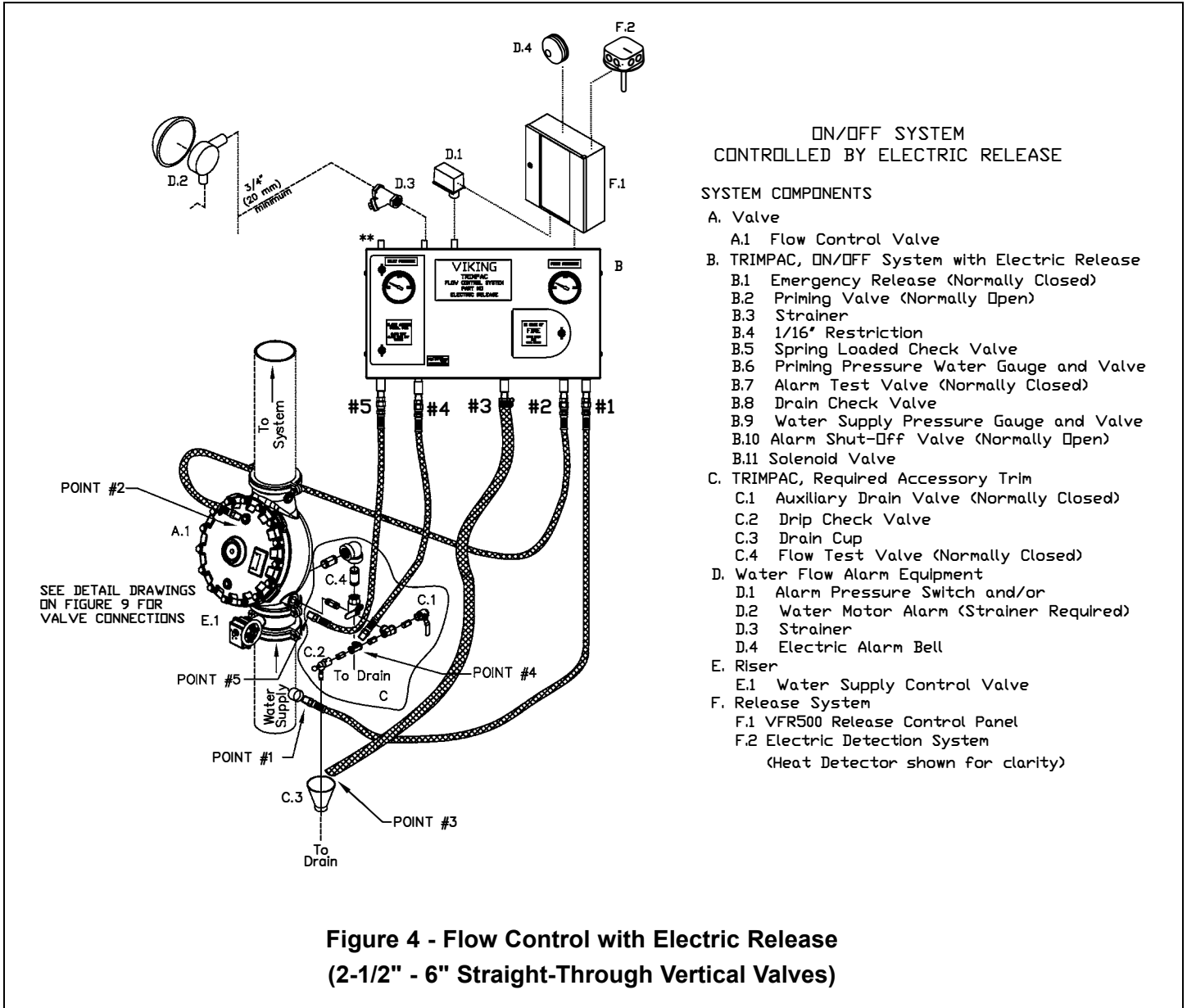
**Figure 3 - Flow Control with Electric Release  
(1-1/2" - 2" Straight-Through Vertical Valves)**



# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

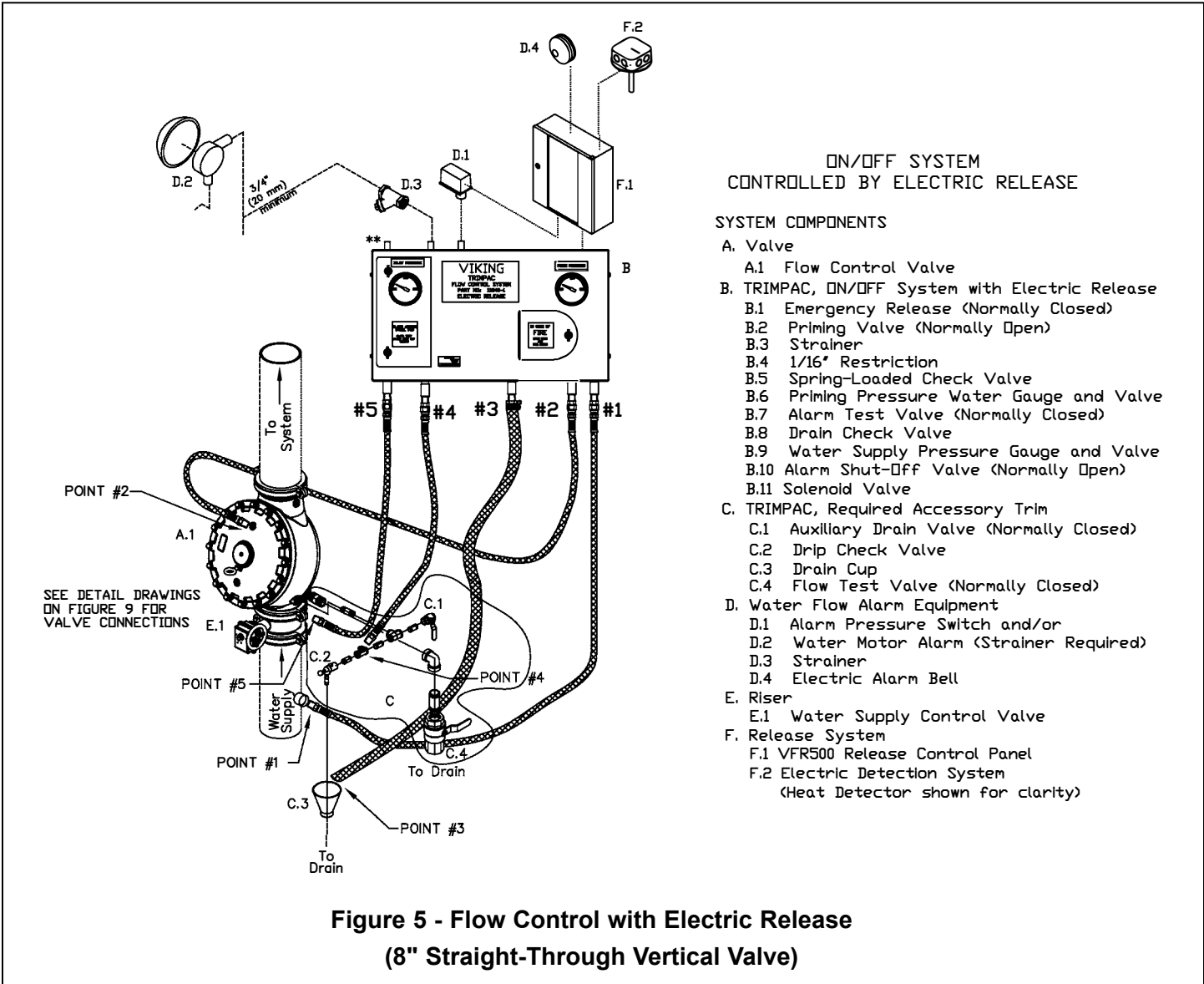




# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

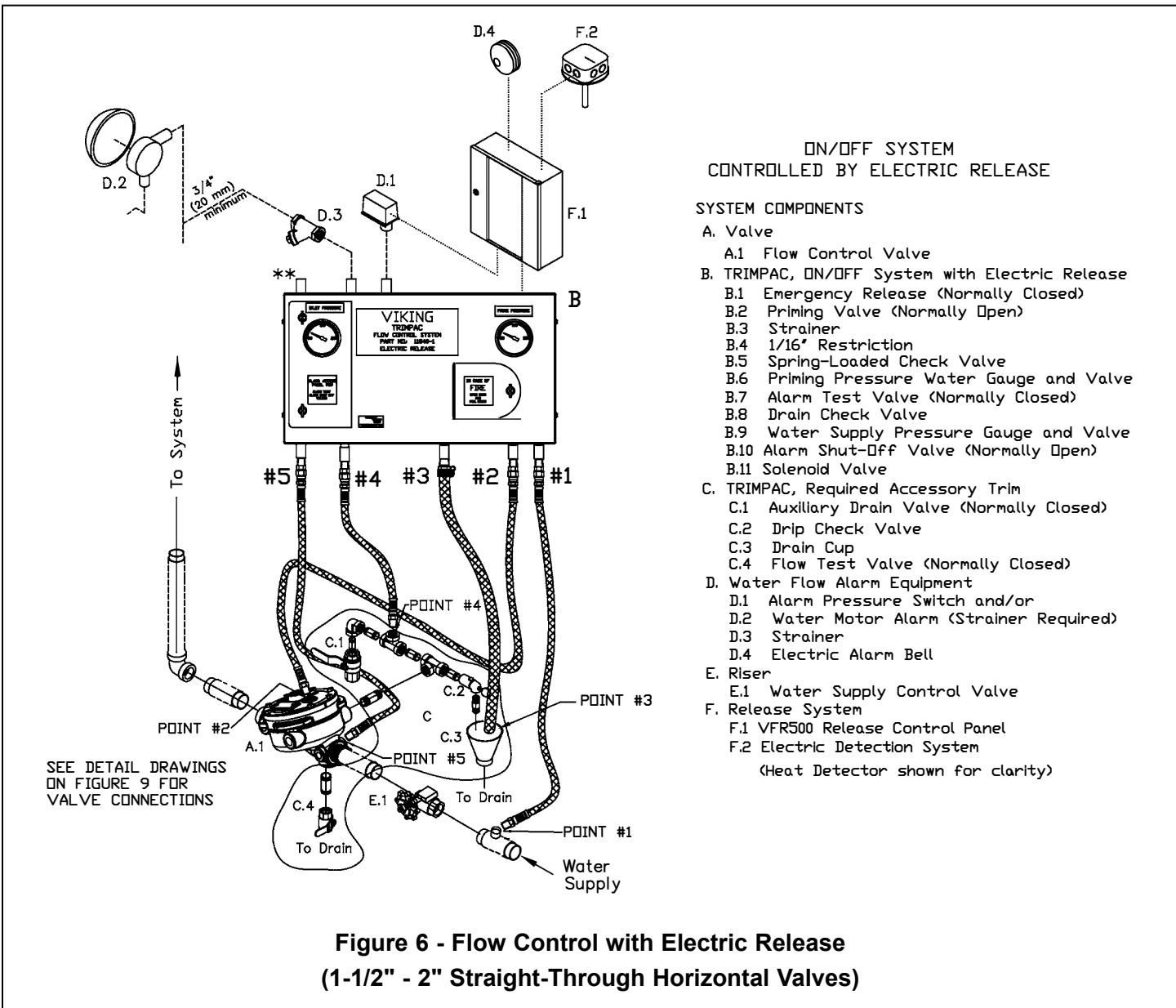




# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

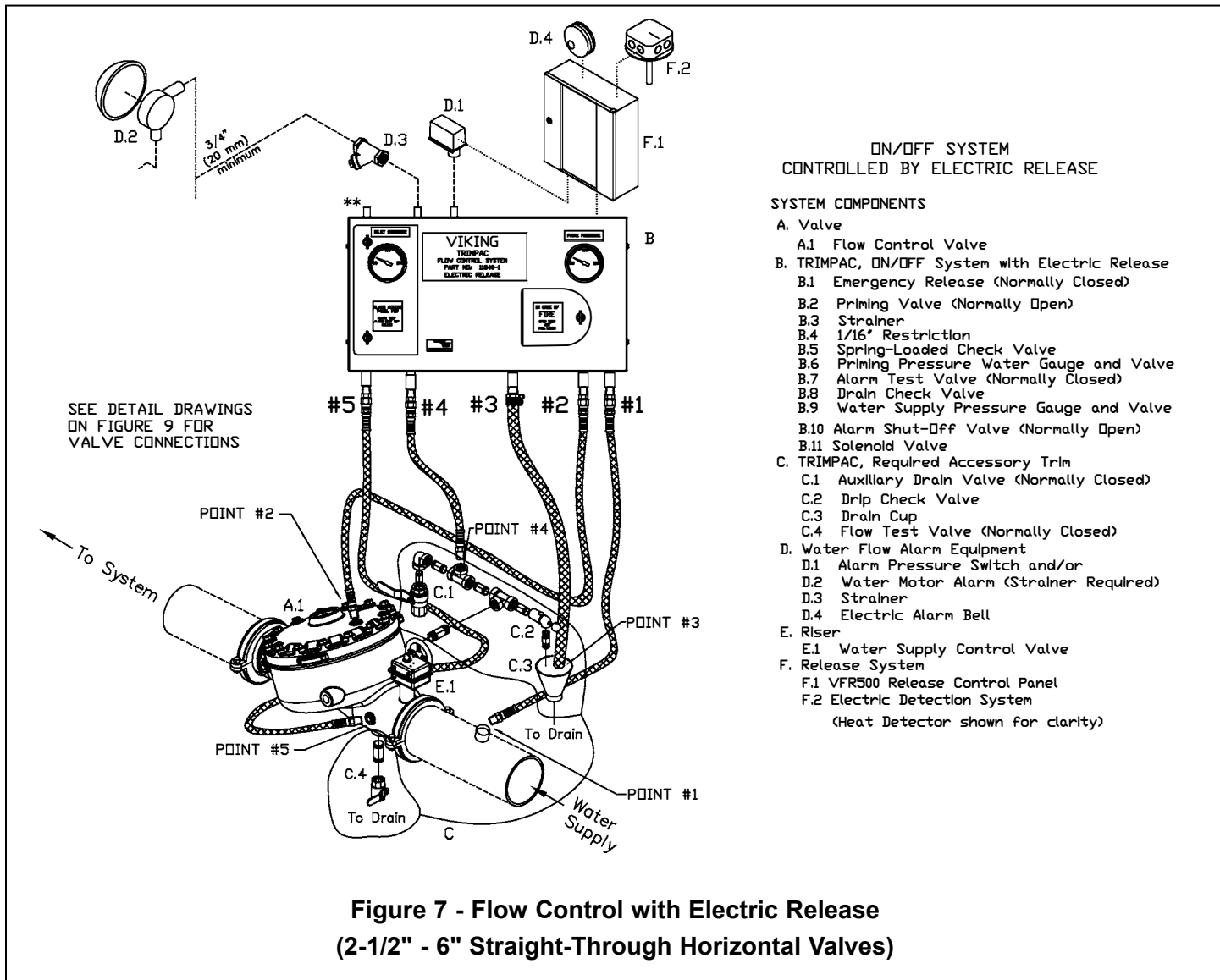




# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

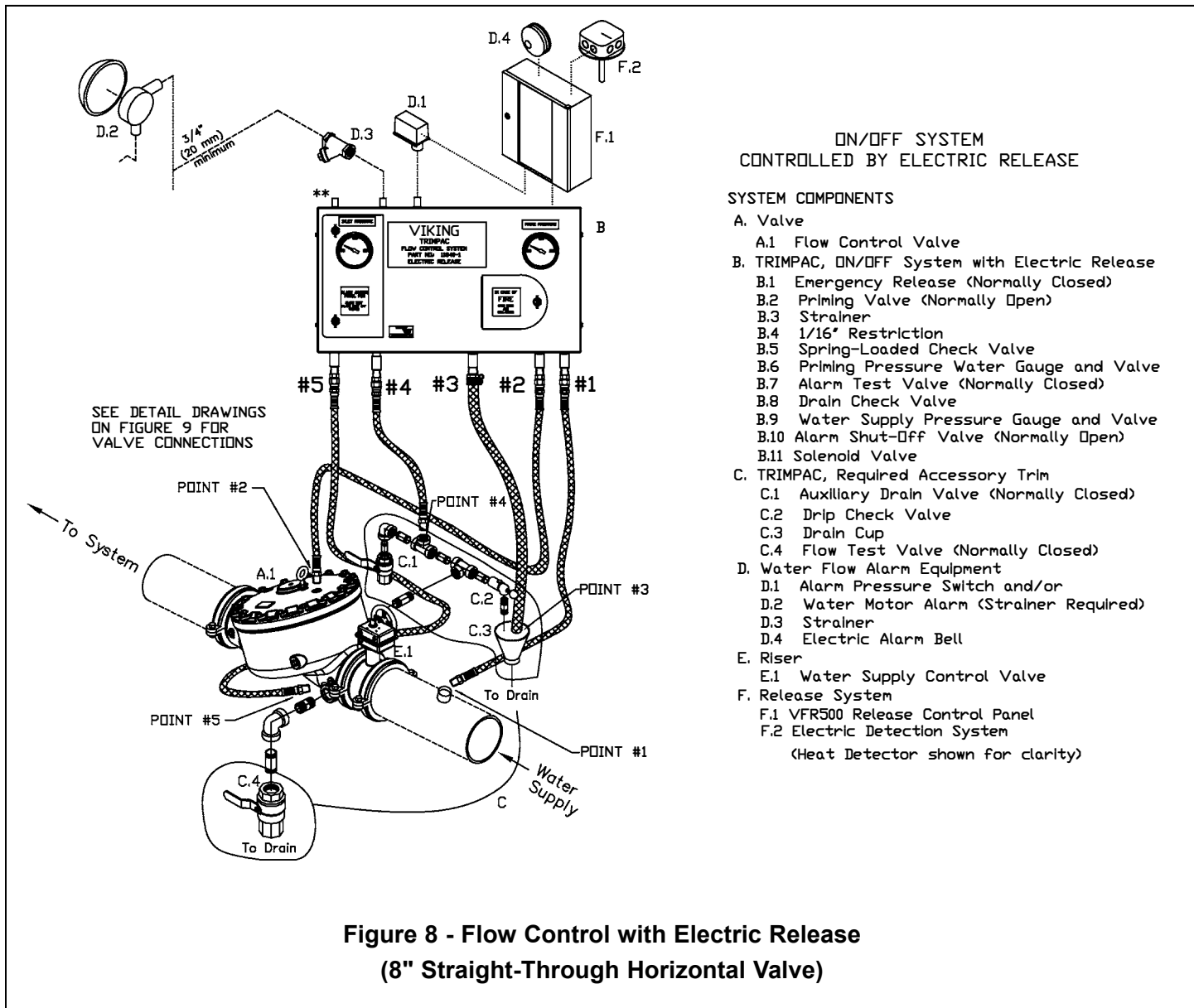




# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

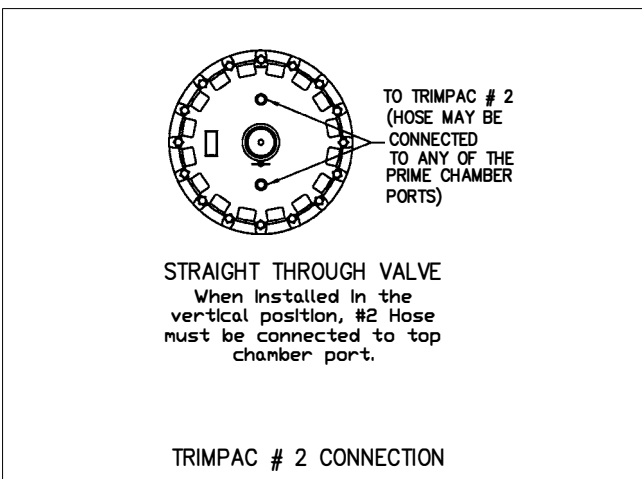
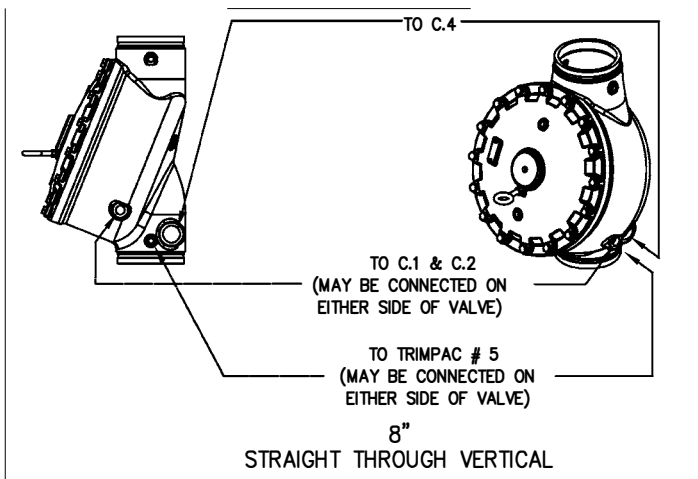
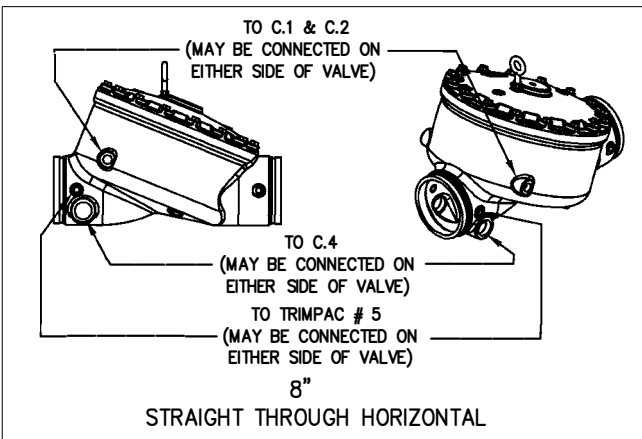
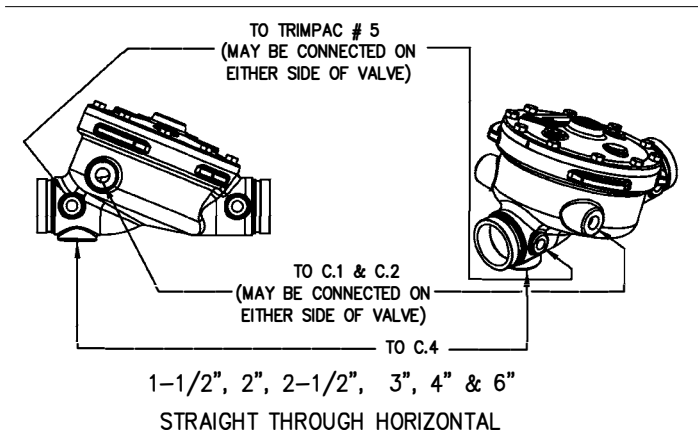
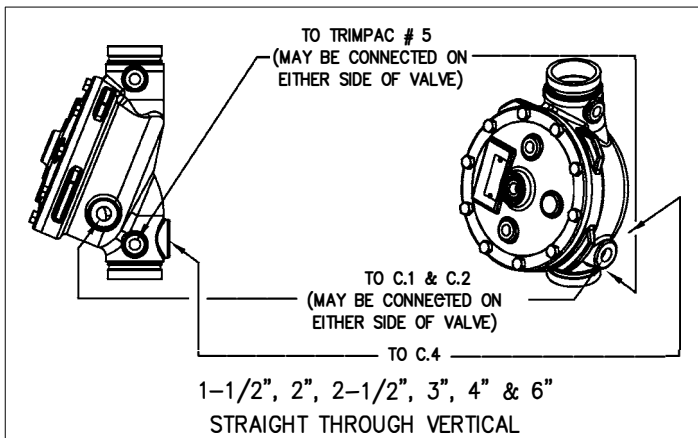


Figure 9 - Valve Connections



# TECHNICAL DATA

## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

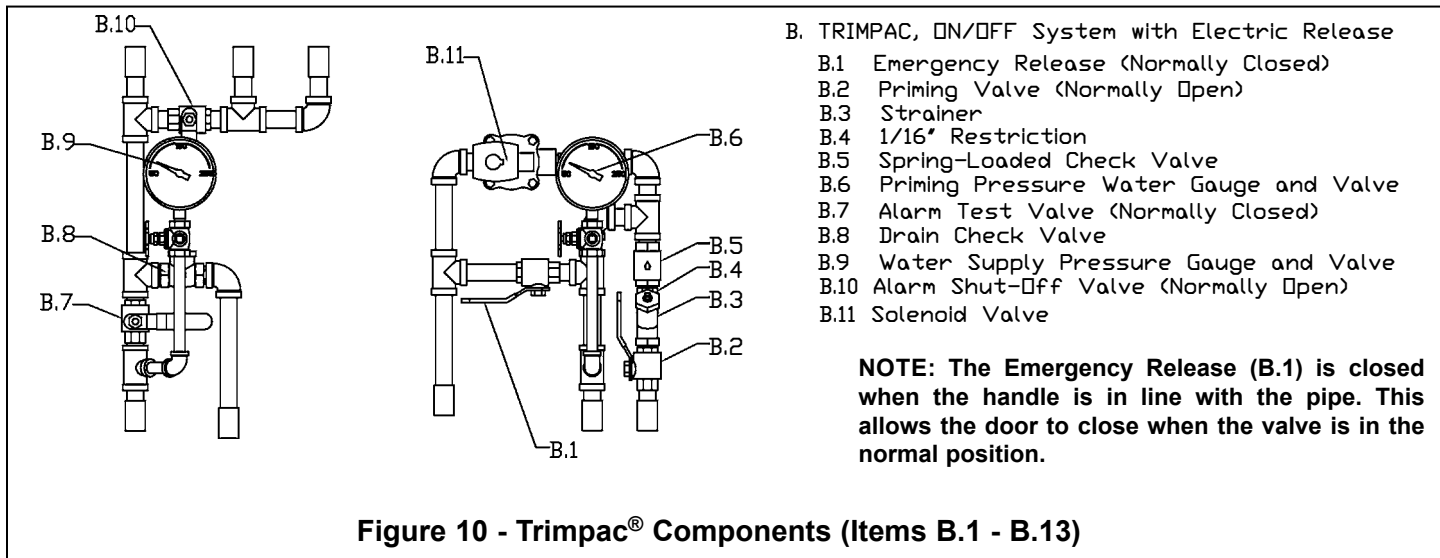
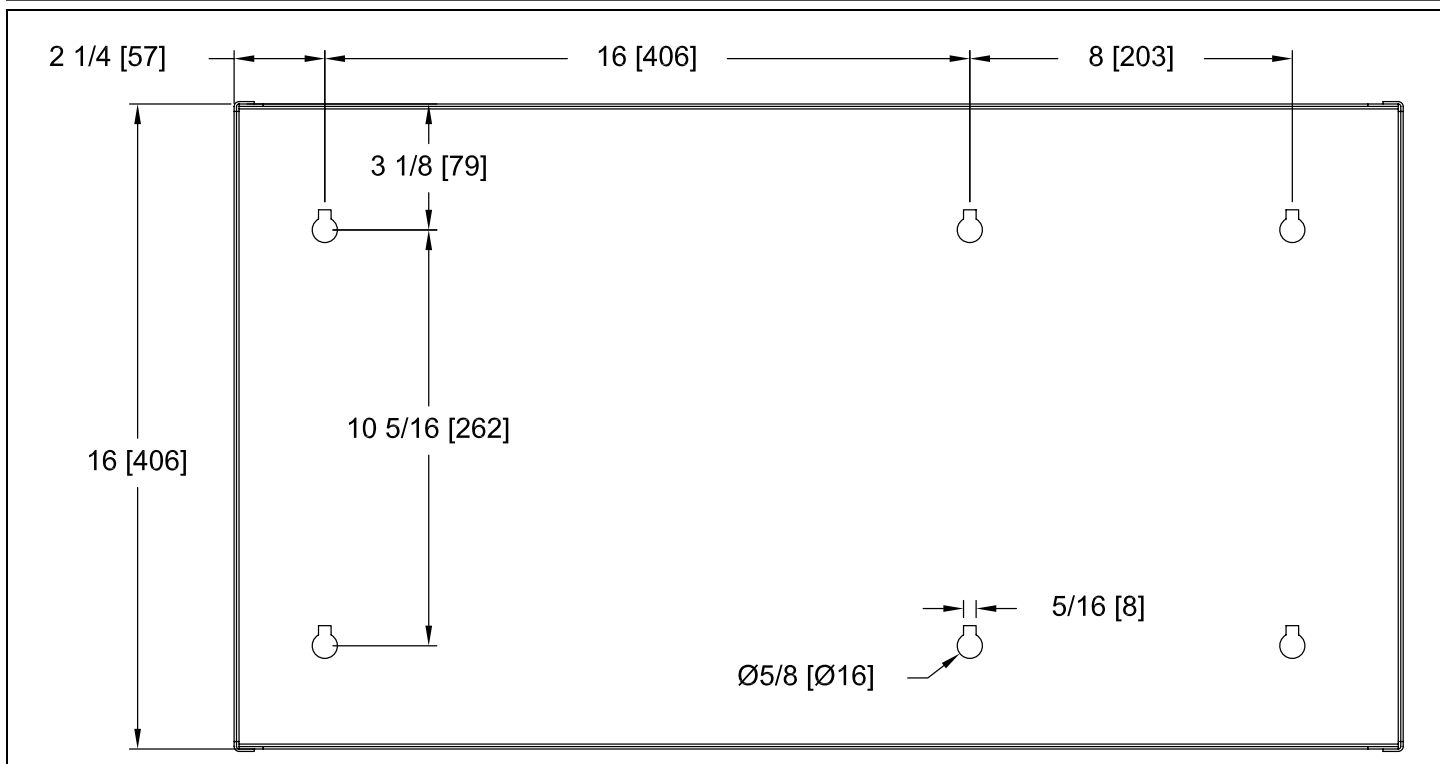


Figure 10 - Trimpac® Components (Items B.1 - B.13)



**Wall Mounting Notes:**

1. Mounting Fasteners are supplied by the contractor.
2. Recommended Fasteners - Minimum 1/4" x 1-1/2 Lg. Hex-head lag screws with washers.
3. When installing into concrete, drywall or metal, use typical grommet.
4. Approximate Weight of TRIMPAC® and Flexible Hoses: 34 lbs. (15.4 kg)

Figure 11 - Mounting Dimensions

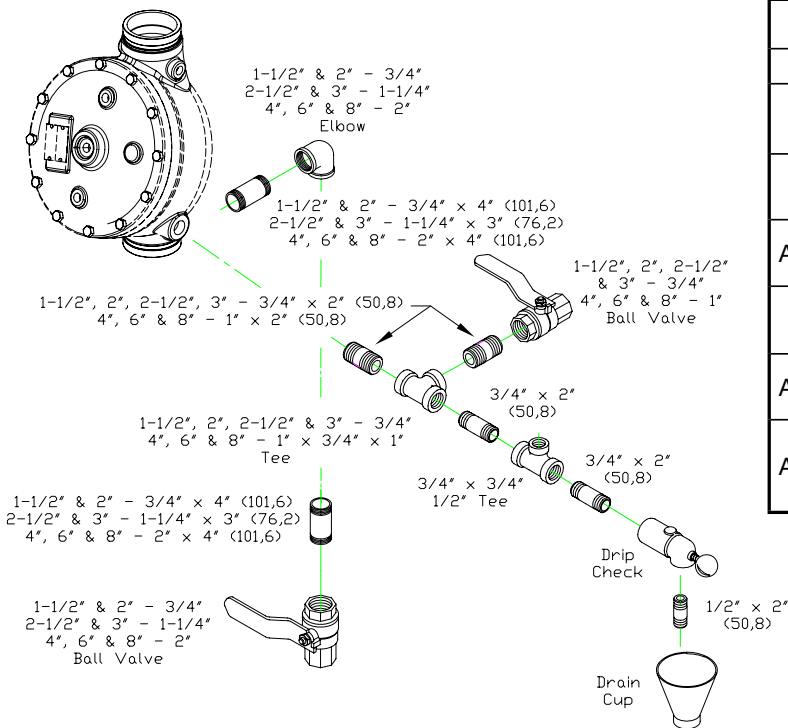


# TECHNICAL DATA

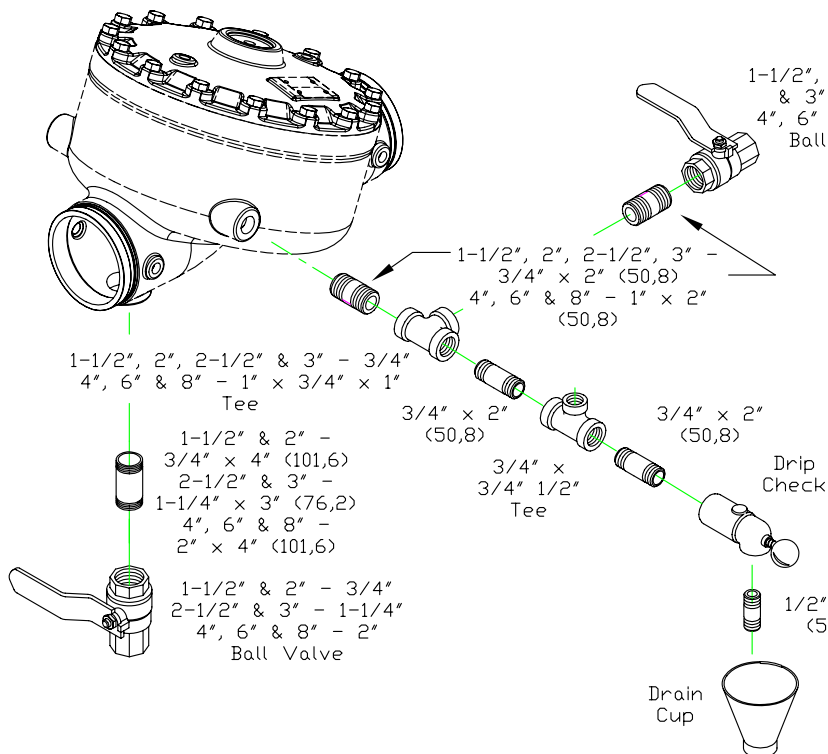
## TRIMPAC® FLOW CONTROL WITH ELECTRIC RELEASE

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

TRIMPAC® DRAIN PACKAGE PART NUMBERS			
Valve	Size	Galvanized	Brass
Angle	1-1/2" (DN40)	11894-1	11894-5
Straight	1-1/2" (DN40)	11894-2	11894-6
Angle & Straight	2" (DN50)	11894-2	11894-6
Straight	2-1/2" (DN65)	11894-3	11894-7
Angle & Straight	3" (DN76)	11894-3	11894-7
Angle & Straight	4" (DN100), 6" (DN150), & 8" (DN200)	11894-4	11894-8



**1-1/2", 2", 2-1/2", 3", 4", 6", & 8"**  
**(DN40, DN50, DN80, DN100, DN150 & DN200)**  
**Straight-Through Vertical Valve**  
**Drain Package Trim Chart**



**1-1/2", 2", 2-1/2", 3", 4", 6", & 8"**  
**(DN40, DN50, DN80, DN100, DN150 & DN200)**  
**Straight-Through Horizontal Valve**  
**Drain Package Trim Chart**

**Figure 12**