



TECHNICAL DATA

**MULTIPLE FOAM/WATER
DELUGE SYSTEMS
SUPPLIED BY A BLADDER TANK**

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

1. DESCRIPTION

With Multiple Foam/Water Deluge Systems Supplied by a Bladder Tank, multiple deluge foam risers can be supplied from a single foam concentrate source. Where a bladder tank is used as the foam concentrate storage container and foam concentrate source, a manifold foam concentrate supply from the bladder tank to the individual risers is a cost effective method of installing many foam risers without duplicating the foam concentrate supply for each different riser. The foam concentrate bladder tank will be sized by the most demanding system. It is important to remember that the most demanding system will also require taking in account that the duration requirement per system may differ as well.

Multiple deluge foam risers can be supplied by a single bladder tank when a concentrate manifold from the discharge head of the bladder tank is installed to each individual riser. The foam concentrate manifold will be sized for the most severe volume requirement and metered pressure drop requirement. At each riser location, a supply outlet will be provided from the concentrate manifold supply. The supply outlet will have a concentrate shut-off valve, a Halar[®] coated concentrate control valve, concentrate piping, a concentrate swing check valve, and a concentrate controller with integral metering orifice.

The individual deluge riser will have a water supply control valve, Viking deluge valve with deluge trim, riser piping, concentrate controller, solution test valve and system isolation valve.

A manifold supply from a bladder tank to multiple deluge risers allows for individual proportioning at each riser, allowing for different size risers. A manifold supply from a bladder tank to multiple deluge risers also allows for individual system repair without completely losing foam protection for other areas.

2. LISTINGS AND APPROVALS

No formal approval as a system. Main component approvals listed below.

- Deluge Valve and Trim
 - UL Listed - Guide VLFT
 - FM - Automatic Water Control Valves
- Concentrate Controller (Proportioner)
 - UL Listed - Guide GFGV
 - FM Approved - Low Expansion Foam Systems
- Halar[®] Coated Concentrate Control Valve (CCV)
 - UL Listed - Guide VLFT
 - FM Approved - Automatic Water Control Valve as standard deluge valve. No formal approval available for coating.
- Foam Concentrate
 - UL Listed - Guide GFGV
 - FM Approved - Low Expansion Foam Systems
- Viking Bladder Tank ASME Sect. VIII Certified
 - UL Listed - Guide GHXV
 - FM Approved - Low Expansion Foam Systems

3. TECHNICAL DATA

Specifications:

Refer to individual component technical data page.

Material Standards:

Refer to individual component technical data page.

Ordering Information:

Refer to Tables 1 through 3.

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.

4. INSTALLATION

A. Discharge Devices

- Standard Spray Sprinklers (Open type)
- Foam chambers
- Foam makers
- Fixed monitors
- Oscillating monitors
- Spray Nozzles (Open type)



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- Listed discharge devices are tested with specific concentrates and may have different listed densities than what is listed in various NFPA standards. AR-AFFF foam concentrates are listed with specific discharge devices and the fuels they are to protect.

B. General Instructions and Warnings

1. Refer to Warnings and General Notes on pages 2 a-d in the "Foam Design" section of the *Viking Foam Systems Engineering and Design Data* book.
2. Refer to specific technical data sheets, acceptable installation standards, applicable codes, and Authority Having Jurisdiction for additional installation, operation, and maintenance instructions.
3. Inspections – It is imperative that the system be inspected and tested on a regular basis. See Section 6 - Inspections, Tests, and Maintenance.
4. **Warning** – Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the effected area.
5. The valve, trim, and assembly must be installed in an area not subject to freezing temperatures or physical damage.

C. Design and Installation

Warning: Locate all portions of the foam/water system subject to freezing in a heated area.

1. Refer to the Special Notes section on page 21d and Warnings and General Notes on pages 2 a-d in the "Foam Design" section of the Viking foam data book.
2. Install the deluge valve and trim (A) in accordance with *Viking Engineering and Design Data* book.
3. Install the proportioning device, concentrate controller (B), in the riser at least 5 pipe diameters past the deluge valve. (The concentrate controller must be installed 5 pipe diameters of straight piping past a valve or change of direction. The same 5 pipe diameters of straight pipe are required on the discharge side of the concentrate controller as well to ensure proper proportioning.)
4. Install foam solution test valve (5) and system isolation valve (6). These valves are required to facilitate annual foam proportioning tests. The system isolation valve (6) is in the normally open position when the system is in operation. The solution test valve (5) is in the normally closed position when the system is in operation. When the system is to be tested annually for proportioning, the system isolation valve (6) is closed to eliminate foam water solution from entering the system piping. The solution test valve (5) is opened once a flow rate is established in the riser. The solution test valve is normally sized the same size as the riser piping to accept the design flow of the system. The discharge of the solution test valve is normally piped to a test header with 2½" angle valves to aid in controlling the discharge of foam solution.
5. Install the hydraulically actuated Halar® coated concentrate control valve (C) and associated trim as indicated on trim charts or technical data pages.
6. A concentrate shut-off valve (1) located upstream of the Halar® coated concentrate control valve (C) is required to isolate the Halar® coated concentrate control valve when setting up the system or when repairs are to be made to the deluge foam system.
7. Install the Viking foam bladder tank and associated trim in accordance with Viking foam bladder tank installation manual.
 - a. Install the foam concentrate piping from the discharge head of the foam bladder tank to the individual sprinkler risers. The concentrate manifold supply line may be oversized from the concentrate controller inlet piping to make up for friction loss from the bladder tank to the most remote sprinkler riser.
 - b. Allow access to the foam bladder tank for filling from barrels of foam concentrate and bladder replacement. When a bladder is replaced in a foam bladder tank, a vertical tank will be laid on its side and tank flanges removed, a horizontal bladder tank has all tank flanges removed for bladder removal.
 - c. All valves and devices should be located for easy access for operation and maintenance.
8. Placing System in Service:
 - a. Verify that the water supply control valve (2) is closed, then place deluge valve (C) in service (see instructions on Viking Technical Data Sheet). Open the system isolation valve (6) if closed. Close the solution test valve (5) if open.
 - b. Priming the deluge valve will prime the Halar® coated concentrate control valve (C). Priming pressure will be present on the priming pressure gauge located as part of the concentrate control valve trim package. Bleed off any air pressure trapped in the priming line (3) to the Viking Halar® coated concentrate control (C) by opening the 3-way pressure gauge valve (4).
 - c. Open the water supply control valve (2) to the deluge valve after the deluge valve and the concentrate control valve (C) has been primed.
 - d. Place foam bladder tank in service. The concentrate shut-off valve (1) will be in the closed position until foam bladder tank



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is placed in service. After filling the bladder tank in accordance with the Viking bladder tank installation manual, the bladder tank water supply control valve will be opened. The concentrate manifold drain valve (9) should be slightly opened to vent any air from the concentrate line. Once concentrate is discharged from the concentrate manifold drain valve, close the valve and allow concentrate manifold piping to pressurize. Foam concentrate pressure will be indicated on the foam concentrate pressure gauge (10) located upstream of the of the concentrate shut-off valve (1). Once pressure is indicated on concentrate pressure gauge (10), slowly open foam concentrate shut-off valve.

- e. Once foam concentrate shut-off valve (1) is opened, verify that foam concentrate is not passing by the Halar[®] coated concentrate control valve (C) by opening the ½" foam concentrate auxiliary drain valve (7). If foam concentrate appears, close the concentrate shut-off valve (1) immediately. If foam concentrate is passing by the Halar[®] coated concentrate control valve (C), the valve is not seating and is most likely fouled. Debris must be removed from seat of Halar[®] coated concentrate control valve (C).
8. Removing the System From Service:
 - a. Close the water supply control valve (2).
 - b. Close the concentrate shut-off valve (1).
 - c. Leave the system isolation valve (6) open.
 - d. Leave the solution test valve (5) closed.
 - e. Refer to instructions for removing the deluge valve (A) from service in the *Viking Engineering and Design Data* book.
 - f. Perform maintenance and service on system and riser piping.
 - g. If maintenance is required to be performed on concentrate piping, close the bladder tank water supply control valve (8), and open the shell vent valve on the bladder tank. This will relieve the pressure from the foam concentrate manifold piping. Open the concentrate manifold drain valve (9) to drain concentrate from manifold piping. It is important to remember to capture the foam concentrate drained from the concentrate piping. If disposal is required of the foam concentrate, check with local authorities for the acceptable method in which to do so.

NOTE: If repairs or modifications are required on the foam concentrate supply piping, the deluge valve and deluge system may be kept in service for protection, while repairs to the foam system concentrate piping are performed.

5. OPERATION

Once the deluge system release system operates, the deluge valve opens allowing water to enter the deluge system piping. The Halar[®] coated concentrate control valve (C) is primed from a common connection with the deluge valve, once the deluge valve's priming pressure is relieved, the Halar[®] coated concentrate control valve (C) priming pressure is relieved as well. The concentrate control valve (C) will open and foam concentrate will flow into the inlet of the concentrate controller. The foam concentrate is supplied by the foam bladder tank which is under the same water pressure as the deluge riser. Once water starts flowing into the deluge riser(s), water is flowing into the bladder tank to displace the foam concentrate required at the concentrate controller. The water being supplied into the tank is equal to the foam concentrate being metered into the water stream at the concentrate controller.

Once water passes through the concentrate controller, foam concentrate is discharged into the concentrate controller through an orifice listed and approved for the foam concentrate to be utilized. The foam and water mix and create a foam/water solution. Generally the foam solution has a proportion of 1% or 3% of foam concentrate to water. A foam blanket is created once it has discharged through the discharge device(s). A foam blanket is produced through one of two actions; agitation, as would happen when discharged through a standard sprinkler head, or aeration, as would happen when discharged through a foam chamber or foam maker. The foam blanket that is created by the discharge device is part of the listing or approval obtained with the foam concentrate testing.

6. INSPECTION, TESTS AND MAINTENANCE

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 recognized standards such as those produced by NFPA, LPC and VdS, which describe care and maintenance of sprinkler systems. In addition, the Authority Having Jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

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

Inspections - It is imperative that the system be inspected and tested on a regular basis. The following recommendations are minimum requirements. The frequency of the inspections may vary due to contaminated or corrosive water supplies and corrosive atmospheres. In addition, the alarm devices or other connected equipment may require more frequent inspections. Refer to the technical data, system description, applicable codes, and Authority Having Jurisdiction for minimum requirements. Prior to testing the equipment, notify appropriate personnel.

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7. AVAILABILITY

The Multiple Wet Pipe Foam/Water Systems Supplied by a Bladder Tank 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.

SPECIAL NOTES

- A. Provide a minimum of 5 pipe diameters of straight pipe on the inlet and outlet of the concentrate controller (B) to minimize turbulence inside the concentrate controller.
- B. The combined total equivalent length of pipe, fittings and valves in both the water supply inlet piping and the foam concentrate discharge piping, must not exceed 50 equivalent feet (15.2 meters). This will allow both pipes to be the same size as the foam liquid inlet to the concentrate controller. Should the total equivalent length exceed 50 feet (15.2 meters), then refer to the "Proportioning Equipment" section of the foam data book for the method of calculating these pipe sizes.
- C. The Halar[®] coated concentrate control deluge valve (C) and swing check valve must be connected adjacent to the concentrate controller using pipe nipples as short as possible.
- D. Figures 1 and 2 are general schematics of the required piping arrangement. Refer to the appropriate technical data page for specific information regarding the valve, tank, and related trim and devices.
- E. The technical information, statements, and recommendations contained in this manual are based on information and tests which, to the best of our knowledge, we believe to be dependable. It represents general guidelines only, and the accuracy or completeness thereof, are not guaranteed since conditions of handling and usage are outside our control. The purchaser should determine the suitability of the product for its intended use and assumes all risks and liability whatsoever in connection therewith.
- F. The Halar[®] coated concentrate control deluge valve (C) does not require any trim, except for a 1/2" priming line and water pressure gauge and 3-way valve from the main deluge valve (A) to the priming chamber of valve (C). Plug all the remaining valve trim outlets. Connect Halar[®] coated concentrate control deluge valve (C) priming line to deluge valve (A) as shown on Figures 1 and 2. Refer to the "Valves" section of this data book to find the correct trim kit part number for the corresponding size of Halar[®] coated foam concentrate control deluge valve (C) required.
- G. A strainer is not required in the foam concentrate discharge piping of bladder tank systems per NFPA Standards.



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DELUGE FOAM SYSTEM MANIFOLD SUPPLIED FROM A BLADDER TANK

- A. Deluge Valve and Trim
- B. Concentrate Controller
- C. Halar Coated Concentrate Control Valve
(*Angle and Straight Thru Style CCV available.)
- 1. Foam Concentrate Shut-off Valve
- 2. Water Supply Control Valve
- 3. Priming Line
- 4. CCV Priming Pressure Gauge
- 5. Solution Test Valve
- 6. System Isolation Valve
- 7. Concentrate Auxiliary Drain Valve
- 8. Bladder Tank Water Supply Control Valve
- 9. Concentrate Manifold Drain Valve
- 10. Foam Concentrate Pressure Gauge

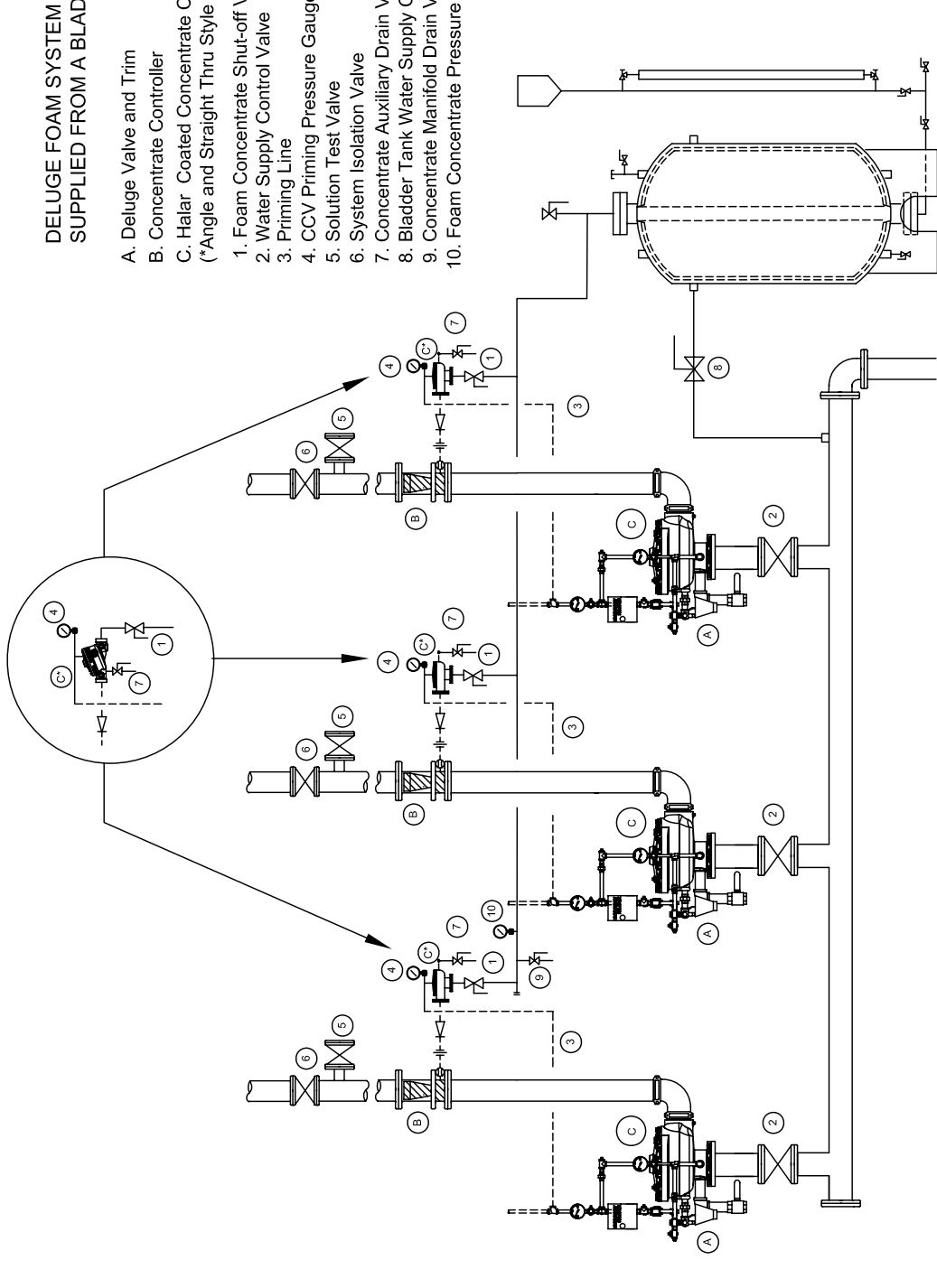


Figure 1



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 8. Bladder Tank Water Supply Control Valve
 9. Concentrate Manifold Drain Valve
 10. Foam Concentrate Pressure Gauge

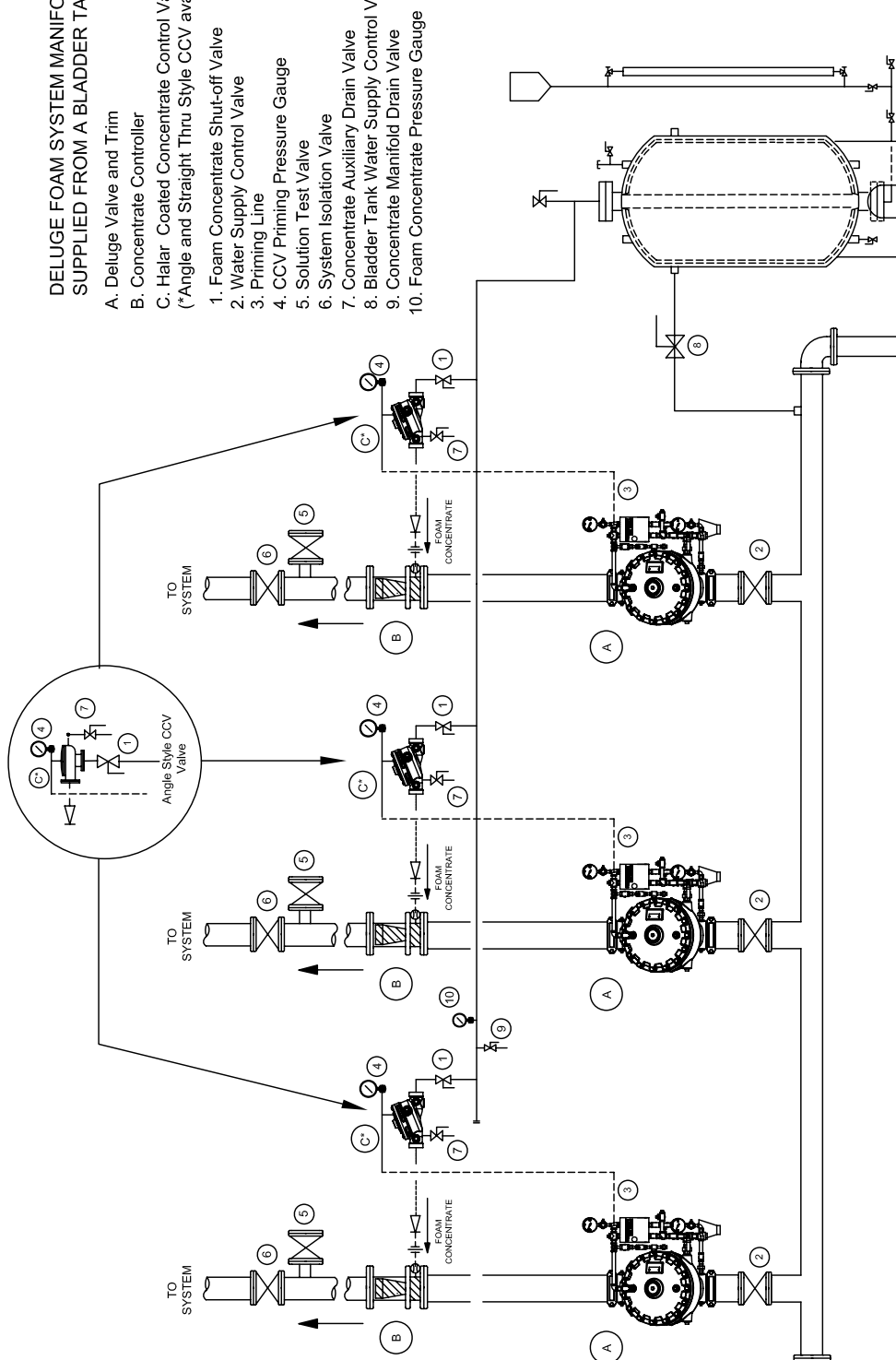


Figure 2



TECHNICAL DATA

**MULTIPLE FOAM/WATER
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For complete Multiple Deluge Foam/Water Systems Supplied by a Bladder Tank, select Deluge Valve and Trim, Release Trim, Foam Concentrate Control Valve and Trim, Foam Concentrate, Ratio Flow Controller, Bladder Tank, and Accessories.

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
DELUGE VALVES - ANGLE STYLE				
Threaded	Model & Pipe O.D.	Painted Red		
	Model E-3 48 mm	1½" / DN40	09889 209 a-h	
	Model E-1 60 mm	2" / DN50	05852C 210 a-h	
	Model & Pipe O.D.	Halar Coated		
	Model E-4 48 mm	1½" / DN40	09890Q/B 212 a-j	
	Model E-2 60 mm	2" / DN50	08361Q/B 213 a-j	
Flange/ Flange	Flange Drilling	Model E-1	Painted Red	
	ANSI	3"	05912C	
	ANSI	4"	05909C	
	ANSI	6"	05906C	
	ANSI/Japan	6"	07136	
	PN10/16	DN80	08626	
	PN10/16	DN100	08629	
	PN10/16	DN150	08631	
	Flange Drilling	Model E-2	Halar® Coated	
	ANSI	3"	08362Q/B	
	ANSI	4"	08363Q/B	
	ANSI	6"	08364Q/B	
	PN10/16	DN80	08862Q/B	
	PN10/16	DN100	08863Q/B	
	PN10/16	DN150	08864Q/B	
	Flange/ Groove	Flange Drilling / Pipe O.D.	Model E-1	Painted Red
		ANSI / 89 mm	3"	05835C
		ANSI / 114 mm	4"	05839C
ANSI / 168 mm		6"	05456C	
PN10/16 / 89 mm		DN80	09539	
PN10/16 / 114 mm		DN100	09540	
PN10/16 / 168 mm		DN150	05456C	
Flange Drilling / Pipe O.D.		Model E-2	Halar® Coated	
ANSI / 89 mm		3"	11064Q/B	
ANSI / 114 mm		4"	11065Q/B	
ANSI / 168 mm		6"	11001Q/B	
PN10/16 / 168 mm		DN150	11001Q/B	

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
DELUGE VALVES - STRAIGHT THROUGH				
Flange/ Flange	Flange Drilling	Model F-1	Painted Red	
	ANSI	3"	12014	
	ANSI	4"	11953	
	ANSI	6"	11955	
	ANSI	8"	11991	
	ANSI/Japan	6"	11964	
	PN10/16	DN80	12026	
	PN10/16	DN100	11965	
	PN10/16	DN150	11956	
	PN10	DN200	11995	
	PN16	DN200	11999	
	Flange Drilling	Model F-2	Halar Coated	
	ANSI	3"	12015Q/B	
	ANSI	4"	11960Q/B	
	ANSI	6"	11962Q/B	
	ANSI	8"	11992Q/B	
	PN10/16	DN80	12027Q/B	
	PN10/16	DN100	11966Q/B	
PN10/16	DN150	11963Q/B		
PN10	DN200	11996Q/B		
PN16	DN200	12000Q/B		
Flange/ Groove	Flange Drilling / Pipe O.D.	Model F-1	Painted Red	
	ANSI / 89 mm	3"	12018	
	ANSI / 114 mm	4"	11952	
	ANSI / 168 mm	6"	11954	
	PN10/16 / 89 mm	DN80	12030	
	PN10/16 / 114 mm	DN100	11958	
	PN10/16 / 165 mm	DN150	12640	
	PN10/16 / 168 mm	DN150	11954	
	Flange Drilling / Pipe O.D.	Model F-2	Halar Coated	
	ANSI / 89 mm	3"	12019Q/B	
	ANSI / 114 mm	4"	11959Q/B	
	ANSI / 168 mm	6"	11961Q/B	
	PN10/16 / 89 mm	DN80	12644Q/B	
	PN10/16 / 114 mm	DN100	12645Q/B	
	PN10/16 / 165 mm	DN150	12641Q/B	
	PN10/16 / 168 mm	DN150	11961Q/B	
	Groove/ Groove	Pipe O.D.	Model F-1	Painted Red
		48 mm	1½" / DN40	12125
60 mm		2" / DN50	12057	
73 mm		2½" / DN65	12403	
76 mm		DN80	12729	
89 mm		3" / DN80	12022	
114 mm		4" / DN100	11513	
165 mm		DN150	11910	
168 mm		6" / DN150	11524	
219 mm		8" / DN200	11018	
Pipe O.D.		Model F-2	Halar Coated	
48 mm		1½" / DN40	12127Q/B	
60 mm		2" / DN50	12058Q/B	
73 mm		2½" / DN65	12404Q/B	
76mm		DN80	12730Q/B	
89mm		3" / DN80	12023Q/B	
114 mm		4" / DN100	11514Q/B	
165 mm		DN150	11911Q/B	
168 mm	6" / DN150	11525Q/B		
219 mm	8" / DN200	11118Q/B		

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
DELUGE VALVES - STRAIGHT THROUGH				
Threaded	Pipe O.D.	Model F-1	Painted Red	
	NPT 48 mm	1½"	12126	
	NPT 60 mm	2"	12059	
	NPT 65 mm	2½"	12401	
	BSP 48 mm	DN40	12682	
	BSP 60 mm	DN50	12686	
	Pipe O.D.	Model F-2	Halar® Coated	
	NPT 65 mm	2½"	12402Q/B	

Table 1



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DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE		
DELUGE VALVE TRIM					
Use with Angle Style Valves		Galvanized	Brass		
	1½" / DN40	14629-1	14629-2	225 a-c	
	2" / DN50	14630-1	14630-2	226 a-c	
	3" / DN80	14631-1	14631-2	227 a-c	
	4" / DN100	14632-1	14632-2		
	6" / DN150	14633-1	14633-2		
Use with Straight Through Valves	Horizontal	1½" / DN40	14635-1	14635-2	235 a-c
		2" / DN50	14637-1	14637-2	239 e-g
		2½" / DN65			
		3" / DN80			
		4" / DN100	14638-1	14638-2	240 a-c
		6" / DN150	14640-1	14640-2	241 a-c
	Vertical	8" / DN200	14643-1	14643-2	242 a-c
		1½" / DN40	14634-1	14634-2	235 e-g
		2" / DN50			
		2½" / DN65	14636-1	14636-2	239 e-g
		3" / DN80			
		4" / DN100	14639-1	14639-2	240 e-g
6" / DN150	14641-1	14641-2	241 a-c		
8" / DN200	14643-1	14643-2	242 e-g		

DESCRIPTION	MATERIAL	PART NUMBER	DATA PAGE
RELEASE TRIM PACKAGES			
Use with Angle or Straight Through Valves	PNEUMATIC RELEASE		
	Galvanized	10809	265 b
	Brass	10811	
	ELECTRIC RELEASE		
	Galvanized	10830	265 a
	Brass	10832	

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE
TRIMPAC®			
Includes Conventional Trim, Release Trim, and Flexible Hose Kit	PNEUMATIC RELEASE		
	Galvanized	13788B-2	245 a-t
	Brass	13788B-2B	
	ELECTRIC RELEASE		
	Galvanized	137887B-1	244 a-s
	Brass	13787B-1B	
DRAIN PACKAGE			
Use with TrimPac (above)	1½" / DN40	11894-1	Refer to Trimpac Data Page
	2" / DN50	11894-2	
	2½" / DN65	11894-3	
	3" / DN80	11894-3	
	4" / DN100	11894-4	
	6" / DN150	11894-4	
	8" / DN200	11894-4	

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
FOAM CONCENTRATE CONTROL VALVE HALAR® COATED				
Angle Style				
Threaded NPT	<u>Model & Pipe O.D.</u>		61a-f	
	Model E-4 48mm	1½" / DN40		09890Q/B
	Model E-2 60mm	2" / DN50		08361Q/B
Straight Through				
Threaded NPT	<u>Pipe O.D.</u>	Model F-2		12402Q/B
	NPT 65mm	2½"		
Groove/Groove	<u>Pipe O.D.</u>	Model F-2	12127Q/B	
	48mm	1½" / DN40		
	60mm	2" / DN50		
	73mm	2½" / DN65		

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE
FOAM CONCENTRATE CONTROL VALVE TRIM			
Use with Angle Style Valve	Galvanized	08098	61a-f
	1½" / DN40		
	2" / DN50	08099	
	Brass	09694	
	1½" / DN40		
	2" / DN50	09695	
Use with Straight Through Valves	Galvanized	12848-1	
	1½" / DN40		
	2" / DN50	12848-1	
	2½" / DN65	12929-1	
	Brass	12848-2	
	1½" / DN40		
	2" / DN50	12848-2	
2½" / DN65	12929-2		

DESCRIPTION	TANK SIZE	PART NUMBER	DATA PAGE
HORIZONTAL BLADDER TANK	50 - 4500 Gallon	CHBT2-xxxx *	240 a-h
VERTICAL BLADDER TANK	25 - 4500 Gallon	CVBT2-xxxx *	
* Where xxxx is the tank size			

Table 2



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DESCRIPTION				FOAM CONCENTRATES AND RATIO FLOW CONTROLLERS							
NOMINAL SIZE		PART NUMBER		DATA PAGE		FOAM CONCENTRATE			RATIO FLOW CONTROLLER		
FOAM CONCENTRATE SWING CHECK VALVE				DESCRIPTION	PART NUMBER	DATA PAGE	SIZE	PART NUMBER	DATA PAGE		
1 1/2" / DN40		99S-0150				2 1/2" (65 mm) Threaded 1" NPT		F15001/A			
2" / DN50		99S-0200				3" (80 mm) Wafer 1-1/4" NPT		F15007/A			
2 1/2" / DN65		05497C		803 a-d		4" (100 mm) Wafer 1 1/2" NPT		F15013/A			
FOAM SOLUTION TEST VALVE						6" (150 mm) Wafer 2" NPT		F15019/A			
2 1/2" / DN65		01G-0250				8" (200 mm) Wafer 2 1/2" NPT		F15026/A			
3" / DN80		01G-0300				2 1/2" (65 mm) Threaded 1" NPT		F15001/B			
4" / DN100		01G-0400				3" (80 mm) Wafer 1-1/4" NPT		F15007/B			
6" / DN150		01G-0600				4" (100 mm) Wafer 1 1/2" NPT		F15013/B			
8" / DN200		01G-0800				6" (150 mm) Wafer 2" NPT		F15019/B			
SYSTEM ISOLATION VALVE						8" (200 mm) Wafer 2 1/2" NPT		F15026/B			
2 1/2" / DN65		01G-0250				2 1/2" (65 mm) Threaded 1" NPT		F15001/C			
3" / DN80		01G-0300				3" (80 mm) Wafer 1-1/4" NPT		F15007/C			
4" / DN100		01G-0400				4" (100 mm) Wafer 1 1/2" NPT		F15013/C			
6" / DN150		01G-0600				6" (150 mm) Wafer 2" NPT		F15019/C			
8" / DN200		01G-0800				8" (200 mm) Wafer 2 1/2" NPT		F15026/C			
WATER SUPPLY CONTROL VALVE						2 1/2" (65 mm) Threaded 1" NPT		F15001/D			
2 1/2" / DN65		8068A-0250				3" (80 mm) Wafer 1-1/4" NPT		F15007/D			
3" / DN80		8068A-0300				4" (100 mm) Wafer 1 1/2" NPT		F15013/D			
4" / DN100		8068A-0400				6" (150 mm) Wafer 2" NPT		F15022			
6" / DN150		8068A-0600				2 1/2" (65 mm) Threaded 1" NPT		F15001/E			
8" / DN200		8068A-0800				3" (80 mm) Wafer 1-1/4" NPT		F15007/E			
FOAM CONCENTRATE SHUT-OFF VALVE						4" (100 mm) Wafer 1 1/2" NPT		F15013/E			
Ball Valve		1 1/2" / DN40		T595Y66-0150		6" (150 mm) Wafer 2" NPT		F15019/D			
		2" / DN50		T595Y66-0200		2 1/2" (65 mm) Threaded 1" NPT		F15001/J			
ACCESSORIES FOR FOAM/WATER SPRINKLER SYSTEMS						3" (80 mm) Wafer 1-1/4" NPT		F15007/J			
MODEL D-1 PORV		1/2" / DN15		13598		4" (100 mm) Wafer 1 1/2" NPT		F15013/J			
1/8" / 3MM RESTRICTED ORIFICE		1/2" / DN15		06555A		6" (150 mm) Wafer 2" NPT		F15019/J			
SOFT SEAT CHECK VALVE		1/2" / DN15		03945A		8" (200 mm) Wafer 2 1/2" NPT		F15026/J			
Y STRAINER		1/2" / DN15		01054A		2 1/2" (65 mm) Threaded 1" NPT		F15001/H			
BALL VALVE		1/2" / DN15		10355		3" (80 mm) Wafer 1-1/4" NPT		F15007/H			
CONCENTRATE CONTROL VALVE PRIMING CONNECTION PKG.						4" (100 mm) Wafer 1 1/2" NPT		F15013/H			
Required to connect priming chamber		10985				6" (150 mm) Wafer 2" NPT		F15019/H			
BLADDER TANK WATER SUPPLY CONTROL VALVE						2 1/2" (65 mm) Threaded 1" NPT		F15001/H			
Ball Valve		1 1/2" / DN40		WBV-0150		3" (80 mm) Wafer 1-1/4" NPT		F15007/H			
Ball Valve		2" / DN50		WBV-0200		4" (100 mm) Wafer 1 1/2" NPT		F15013/H			
OS & Y		2 1/2" / DN65		8068A-0250		6" (150 mm) Wafer 2" NPT		F15019/H			
OS & Y		3" / DN80		8068A-0300							

Table 3

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