



## TECHNICAL DATA

**GRATE NOZZLE SYSTEM WITH  
PILOT PRESSURE REGULATION  
SUPPLIED BY BLADDER TANKS**

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

The Grate Nozzle System with Pilot Pressure Regulation Supplied by Bladder Tank is a low-level fire suppression system that shall provide fire extinguishing capabilities equal to or better than existing systems with high-flow monitors, provide total floor area coverage including even flow distribution, minimal effect regarding obstructions, low-profile spray pattern at low pressure and provide coverage up to 25' (7.6 m) radius. The nozzle has no moving parts and structurally supports loads due to aircraft or maintenance vehicles passing over the nozzle assembly.

### 2. LISTINGS AND APPROVALS

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

- Flow Control Valve and Trim  
UL Listed - Guide VLFT  
FM - Automatic Water Control Valves
- In-line Balanced Pressure Proportioner (ILBP)  
UL Listed - Guide GFGV  
FM Approved - Low Expansion Foam Systems
- Halar<sup>®</sup> 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
- Grate Nozzle  
UL Listed - Guide GFGV  
FM Approved - Low Expansion Foam Systems  
US DOD Acceptance

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.

### 3. TECHNICAL DATA

#### Specifications:

1. Nozzle assembly shall consist of the Nozzle and Drainage trench support plate and rail supports.
2. Nozzle shall be recessed into trench support plate such that the nozzle is flush with the floor slab and will not create a trip hazard.
3. Nozzle assembly shall be capable of withstanding all static and dynamic loads typically experienced in a military or commercial aircraft maintenance hangar, the maximum load of 350 psi (25.6 kg/sq. cm).
4. Spray trajectory above floor shall be 12" - 18" (.3 m - .4 m)
5. Desired operating pressure at nozzle discharge is 40 - 46 psi (2.8 - 3.2 bar)
6. Spray from nozzle shall cover a radius of 25' (7.6 m) from the drainage trench location (centerline of two parallel trenches spaced 50' (15.2 m) apart) of Nozzle in a 360 deg. pattern.
7. Nozzle spacing within the trench shall be 25' (7.6 m) center-to-center maximum.
8. Nozzle shall produce a nominal AFFF application rate to floor deck within the covered area of 0.10 gpm/ft.sq. (4.0 Lpm/m sq.) minimum.
9. Nozzle shall not include any moving parts.
10. Material of Nozzle shall be compatible with corrosive environment experienced in typical hangar floor areas and withstand the structural loads imposed upon it. All piping proposed as grooved per ANSI / AWWA C606-87 Standard.
11. Nozzle support grate shall be secured into desired position and allow conventional hangar drainage trench grate system installation.

#### Material Standards:

Refer to individual component technical data page.

#### Ordering Information:

Refer to Tables 1 through 3.



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### 4. INSTALLATION

#### A. General Instructions and Warnings

1. Refer to the Warnings and General Notes on pages 2a-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, codes and Authority Having Jurisdiction for additional installation, operation, and maintenance instructions.
3. Inspections – The system must be inspected and tested in accordance with NFPA 25. See Section 7 – Inspection 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 affected area.
5. The valve, trim, bladder tank, and appurtenances must be installed in an area not subject to freezing temperatures or physical damage.

#### B. 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 43d and Warnings and General Notes on pages 2a-d in the "Foam Design" section of the foam data book.
2. Install the flow control valve with pilot pressure regulating deluge trim in accordance with the *Viking Engineering and Design Data* book and Figures 24A or 24B.
3. Install the Viking in-line balanced pressure proportioner (ILBP) (B) in the riser. (See Special Note A and B, page 43d).
4. Install foam solution test valve (5) and system isolation valve (6). These test valves are required in accordance with NFPA 16 and NFPA 16A.
5. Install the Viking hydraulically actuated Halar® coated concentrate control valve (C) and associated trim as indicated in Figures 24A or 24B, trim charts, or technical data pages.
6. Install bladder tank in accordance with the manufacturer's instructions with connections as shown on Figures 24A or 24B, and herein described.
  - a. Locate the tank as close as practical to the system riser.
  - b. Allow enough room around and above the tank to service the bladder.
  - c. Allow access to the tank for filling from barrels of foam concentrate.
  - d. Install the pipe from the riser to the tank as indicated on Figures 24A or 24B. The bladder tank water supply piping (8) must be connected below the pilot pressure regulating deluge valve (A). Install the piping from the bladder tank to the Viking in-line balanced pressure proportioner (ILBP) (B) as straight as possible.
  - e. All valves and devices should be located for easy access for operation and maintenance.
7. All valves should be closed, including the water supply control valve (2), the PORV water supply valve, the tank water supply control valve, the ½" ball valve, the concentrate control shut-off valve (1), and the foam solution test valve (5).
8. Pressurize System:
  - a. Verify that the water supply control valve (2) is closed, close tank water supply control valve, then place the pilot pressure regulating deluge valve (A) in service. (See installation instructions on Viking Technical Data Sheet.) Open system isolation valve (6) if closed.
  - b. Set release and detection system according to installation instructions for a deluge (pneumatic or electric release) system.
  - c. Prime the pilot pressure regulating deluge valve (A) by opening the priming valve on the pressure regulating trim. Prime the Halar® coated concentrate control valve by opening the concentrate control priming valve (3). Bleed off any air pressure trapped in the priming line to the Viking Halar® coated concentrate control valve by opening the 3-way pressure gauge valve. Once air pressure has been relieved, close the 3-way valve to maintain pressure on gauge.
  - d. When pressure in the pilot pressure regulating deluge valve (A) and the concentrate control valve (C) priming chambers equal system water supply pressure, turn on system water supply by opening water supply valve (2), place alarm test shut-off valve in alarm position.
  - e. Place bladder tank in service by following manufacturer's instructions, except to slowly open concentrate control shut-off valve to allow foam concentrate to flow slowly to the Viking Halar® coated concentrate control valve (C). With system set, fully open and secure water supply control valve.
  - f. Verify normal valve positions and secure in proper position.
  - g. Check for and repair any leaks.



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9. Testing the foam concentrate swing check valve: After a flow test or proportioning test has been conducted, the foam concentrate swing check valve should be checked to insure that it maintains a positive seal between the Halar<sup>®</sup> coated concentrate control valve (C) and the pilot pressure regulating riser, by following the procedure outlined below.
  - a. Bleed off any pressure that may have been trapped between the outlet of the chamber of the Halar<sup>®</sup> coated concentrate control valve (C) and the foam concentrate swing check valve by placing a container under the foam concentrate auxiliary drain valve (7) and opening the valve slowly.
  - b. Drain excess foam concentrate into container. Should the leakage continue, check the priming pressure gauge on the Halar<sup>®</sup> coated concentrate control valve (C) to ensure that the valve is primed and closed.
  - c. If the foam concentrate auxiliary drain valve continues to leak foam concentrate, then the concentrate control valve must be checked for proper operation and repaired if necessary.
  - d. Should water continue to leak from the foam concentrate auxiliary drain valve, the foam concentrate check valve clapper rubber and seat should be maintained or repaired if necessary.

### 5. OPERATION

1. Handline opening of nozzle creates flow of 60 gpm per nozzle and sets off 3" alarm valve alarm and trips the foam concentrate control valve, which allows foam concentrate to enter into the 3" proportioner. This is a balanced pressure proportioning system. Foam solution will flow through piping to nozzle at 3% mixture.
2. Floor Foam System: Detection system detects fire situation due to flame. Electric signal provided to the releasing control panel, which opens solenoid valve and allows deluge flow control valve to open, and foam concentrate valve also opens at the same time, allowing foam concentrate to enter the ILBP foam proportioning system inlet. This discharges foam solution at 3% to discharge from the trench nozzles at 40 psi (2.8 bar) each at the most remote and 47 psi (3.24 bar) at least remote. The complete floor area within 5' (1.5 m) of the perimeter walls and door ways is covered in foam within 3 minutes of system actuation. The discharge pressure from trench nozzles is regulated by the Pilot Operated Pressure control Deluge valve to maintain a 40 - 47 psi (2.8 to 3.24 bar) discharge pressure. When flow from the trench system occurs, a flow alarm is given from the discharge pressure alarm switch and the detection system. Refer to NFPA 409 section 7.4.
3. In the event the fire is not controlled by the floor system and hand lines the over head wet system including fused sprinkler heads will open upon the temperature rise to the operating temperature of the sprinklers. Only those in the protected fire area will operate. The maximum area open to the closed sprinklers is 7,500 sq ft and 1/8th of the building height using non flammable draft curtains or structural walls see NFPA 409 Sect. 5.17 and 7.2.

### 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 is 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.

### 7. AVAILABILITY

The Grate Nozzle System with Pilot Pressure Regulation Supplied by 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.

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**SPECIAL NOTES**

- A. Provide a minimum of 5 pipe diameters of straight pipe on the inlet and outlet of the in-line balanced pressure proportioner (ILBP) (B) to minimize the turbulence inside the ILBP. **WARNING!** If the outlet to the foam solution test valve (5) is located closer than 5 pipe diameters, there may be turbulence at high flow rates.
- B. The release of the Halar<sup>®</sup> coated concentrate control valve (C) and the flow control valve (A) must NOT be combined. The concentrate control valve must be primed and released separately of the pressure regulating deluge valve to ensure open position of the concentrate control valve clapper.
- C. Figure 1 is a general schematic of the required piping arrangement. Refer to the appropriate technical data page for specific information regarding the valve, tank, and related trim and devices.
- D. 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.
- E. A strainer is not required in the foam concentrate discharge piping of bladder tank systems per NFPA Standards.
- F. The foam concentrate control deluge valve (C) does not require any trim, except for a 1/2" priming line, 1/2" auxiliary drain valve (29), and gauge with 3-way valve. Plug all remaining valve trim outlets. Refer to the "Valves" section of this data book to find the correct trim kit part number for the corresponding size of foam Halar<sup>®</sup> coated concentrate control valve (C) required.



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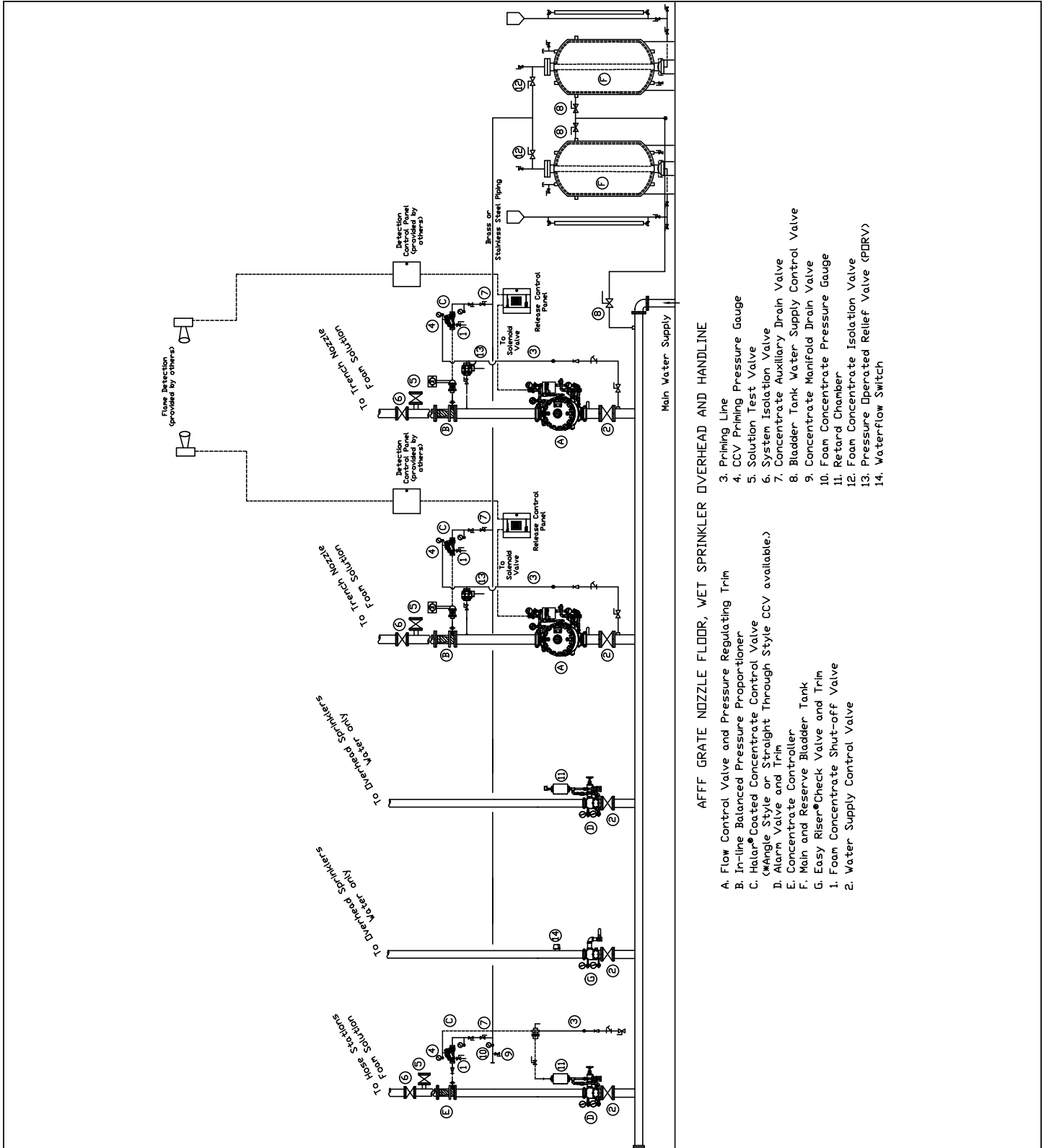


Figure 1



# TECHNICAL DATA

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For complete Grate Nozzle System with Pilot Pressure Regulation Supplied by Bladder Tank, select Flow Control Valve, Deluge and Flow Control Pressure Regulating Trim, Release Trim, Foam Concentrate Control Valve and Trim, Foam Concentrate and ILBP, and Bladder Tank and Accessories.

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE		
<b>Flow Control Valves - Angle Style</b>					
Threaded	<b>Model &amp; Pipe O.D.</b>	<b>Painted Red</b>			
	Model H-3 48 mm	1½" / DN40	09894	500 a-h	
	Model H-1 60 mm	2" / DN50	05856C	501 a-h	
	<b>Model &amp; Pipe O.D.</b>	<b>Halar® Coated</b>			
	Model H-4 48 mm	1½" / DN40	09895Q/B	503 a-j	
	Model H-2 60 mm	08365Q/B	504 a-k		
Flange/ Flange	<b>Flange Drilling</b>	<b>Model H-1</b>	<b>Painted Red</b>		
	ANSI	3"	05914C	502 a-i	
	ANSI	4"	05911C		
	ANSI	6"	05908C		
	ANSI/Japan	4"	09037		
	ANSI/Japan	6"	09386		
	PN10/16	DN80	08627	504 a-k	
	PN10/16	DN100	08630		
	PN10/16	DN150	08632		
	<b>Flange Drilling</b>	<b>Model H-2</b>	<b>Halar® Coated</b>		
	ANSI	3"	08366Q/B	504 a-k	
	ANSI	4"	08367Q/B		
	ANSI	6"	08368Q/B		
	PN10/16	DN80	08873Q/B		
	PN10/16	DN100	08874Q/B		
PN10/16	DN150	08875Q/B			
Flange/ Groove	<b>Flange Drilling / Pipe O.D.</b>	<b>Model H-1</b>	<b>Painted Red</b>		
	ANSI / 89 mm	3"	05837C	502 a-i	
	ANSI / 114 mm	4"	05841C		
	ANSI / 168 mm	6"	05458C		
	PN10/16 / 89 mm	DN80	11658		
	PN10/16 / 114 mm	DN100	11811		
	PN10/16 / 168 mm	DN150	05458C	504 a-k	
	<b>Flange Drilling / Pipe O.D.</b>	<b>Model H-2</b>	<b>Halar® Coated</b>		
	ANSI / 89 mm	3"	11207Q/B		
	ANSI / 114 mm	4"	11208Q/B		
	ANSI / 168 mm	6"	11209Q/B		
	PN10/16 / 168 mm	DN150	11209Q/B		

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
<b>Flow Control Valves - Straight Through</b>				
Threaded	<b>Pipe O.D.</b>	<b>Model J-1</b>	<b>Painted Red</b>	
	NPT 48 mm	1½"	12130	505 a-h
	NPT 60 mm	2"	12063	
	NPT 65 mm	2½"	12405	506 a-j
	BSP 48 mm	DN40	12684	
	BSP 60 mm	DN50	12688	
	<b>Pipe O.D.</b>	<b>Model J-2</b>	<b>Halar® Coated</b>	
NPT 65 mm	2½"	12406Q/B	508 a-k	

DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE	
<b>Flow Control Valves - Straight Through</b>				
Flange/ Flange	<b>Flange Drilling</b>	<b>Model J-1</b>	<b>Painted Red</b>	
	ANSI	3"	12016	506 a-j
	ANSI	4"	11968	
	ANSI	6"	11970	
	ANSI	8"	11993	
	ANSI/Japan	4"	11975	
	ANSI/Japan	6"	11981	
	PN10/16	DN80	12028	
	PN10/16	DN100	11973	
	PN10/16	DN150	11971	
	PN10	DN200	11997	
	PN16	DN200	12001	
	<b>Flange Drilling</b>	<b>Model J-2</b>	<b>Halar® Coated</b>	
	ANSI	3"	12017Q/B	508 a-k
	ANSI	4"	11977Q/B	
ANSI	6"	11979Q/B		
ANSI	8"	11994Q/B		
PN10/16	DN80	12029Q/B		
PN10/16	DN100	11982Q/B		
PN10/16	DN150	11980Q/B		
PN10	DN200	11998Q/B		
PN16	DN200	12002Q/B		
Flange/ Groove	<b>Flange Drilling / Pipe O.D.</b>	<b>Model J-1</b>	<b>Painted Red</b>	
	ANSI / 89 mm	3"	12020	506 a-j
	ANSI / 114 mm	4"	11967	
	ANSI / 168 mm	6"	11969	
	PN10/16 / 89 mm	DN80	12031	
	PN10/16 / 114 mm	DN100	11974	
	PN10/16 / 165 mm	DN150	12642	508 a-k
	PN10/16 / 168 mm	DN150	11969	
	<b>Flange Drilling / Pipe O.D.</b>	<b>Model J-2</b>	<b>Halar® Coated</b>	
	ANSI / 89 mm	3"	12021Q/B	508 a-k
	ANSI / 114 mm	4"	11976Q/B	
	ANSI / 168 mm	6"	11978Q/B	
PN10/16 / 89 mm	DN80	12646Q/B		
PN10/16 / 114 mm	DN100	12647Q/B		
PN10/16 / 165 mm	DN150	12643Q/B		
PN10/16 / 168 mm	DN150	11978Q/B		
Groove/ Groove	<b>Pipe O.D.</b>	<b>Model J-1</b>	<b>Painted Red</b>	
	48 mm	1½" / DN40	12129	505 a-h
	60 mm	2" / DN50	12061	
	73 mm	2½" / DN65	12407	506 a-j
	76 mm	DN80	12731	
	89 mm	3" / DN80	12024	
	114 mm	4" / DN100	11516	
	165 mm	DN150	11912	
	168 mm	6" / DN150	11527	
	219 mm	8" / DN200	11019	
	<b>Pipe O.D.</b>	<b>Model J-2</b>	<b>Halar® Coated</b>	
	48 mm	1½" / DN40	12131Q/B	507 a-f
	60 mm	2" / DN50	12062Q/B	
	73 mm	2½" / DN65	12408Q/B	508 a-k
	76 mm	DN80	12732Q/B	
89 mm	3" / DN80	12025Q/B		
114 mm	4" / DN100	11517Q/B		
165 mm	DN150	11913Q/B		
168 mm	6" / DN150	11528Q/B		
219 mm	8" / DN200	11119Q/B		

Table 1



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DESCRIPTION	NOMINAL SIZE	PART NUMBER		DATA PAGE
<b>Deluge Pressure Regulating Trim for Angle Style Valves</b>				
		Galvanized	Brass	
(Includes both conventional deluge trim and pilot regulator trim, as well as speed control assembly and pilot pressure regulating valve.)	2" / DN50	14715-1	14715-2	<a href="#">540 a-c</a>
	3" / DN80	14716-1	14716-2	<a href="#">540 d-f</a>
	4" / DN100	14717-1	14717-2	<a href="#">540 g-i</a>
	6" / DN150	14718-1	14718-2	<a href="#">540 j-l</a>
<b>Deluge Pressure Regulating Trim for Straight Through Valves</b>				
		Galvanized	Brass	
(Includes both conventional deluge trim and pilot regulator trim, as well as speed control assembly and pilot pressure regulating valve.)	1½" / DN40	14746-1	14746-2	<a href="#">541 a-c</a>
	2" / DN50	14746-1	14746-2	<a href="#">541 a-c</a>
	2½" / DN65	14747-1	14747-2	<a href="#">541 d-f</a>
	3" / DN80	14747-1	14747-2	<a href="#">541 d-f</a>
	4" / DN100	14748-1	14748-2	<a href="#">541 g-i</a>
	6" / DN150	14749-1	14749-2	<a href="#">541 j-l</a>
	8" / DN200	14713-1	14713-2	<a href="#">541 m-o</a>

DESCRIPTION	NOMINAL SIZE	PART NUMBER		DATA PAGE
<b>Flow Control Pressure Regulating Trim for Angle Style Valves</b>				
		Galvanized	Brass	
(Includes both conventional flow control trim and pilot regulator trim, as well as speed control assembly and pilot pressure regulating valve.)	2" / DN50	14764-1	14764-2	<a href="#">543 a-c</a>
	3" / DN80	14765-1	14765-2	<a href="#">543 d-f</a>
	4" / DN100	14766-1	14766-2	<a href="#">543 g-i</a>
	6" / DN150	14767-1	14767-2	<a href="#">543 j-l</a>
<b>Flow Control Pressure Regulating Trim for Straight Through Valves</b>				
		Galvanized	Brass	
(Includes both conventional flow control trim and pilot regulator trim, as well as speed control assembly and pilot pressure regulating valve.)	1½" / DN40	14768-1	14768-2	<a href="#">544 a-c</a>
	2" / DN50	14768-1	14768-2	<a href="#">544 a-c</a>
	2½" / DN65	14769-1	14769-2	<a href="#">544 d-f</a>
	3" / DN80	14769-1	14769-2	<a href="#">544 d-f</a>
	4" / DN100	14770-1	14770-2	<a href="#">544 g-i</a>
	6" / DN150	14771-1	14771-2	<a href="#">544 j-l</a>
	8" / DN200	14772-1	14772-2	<a href="#">544 m-o</a>

DESCRIPTION	PART NUMBER		DATA PAGE
<b>RELEASE TRIM PACKAGES</b>			
Use with Angle or Straight Through Valves		Galvanized	Brass
	Electric Release	10830	10832

DESCRIPTION	TANK SIZE	PART NUMBER	DATA PAGE
<b>HORIZONTAL BLADDER TANK</b>	50 - 4500 Gallon	CHBT2-xxxx *	<a href="#">240 a-h</a>
<b>VERTICAL BLADDER TANK</b>	25 - 4500 Gallon	CVBT2-xxxx *	
* Where xxxx is the tank size			

DESCRIPTION	NOMINAL SIZE	PART NUMBER		DATA PAGE	
<b>FOAM CONCENTRATE CONTROL VALVE HALAR® COATED</b>					
<b>Angle Style</b>					
Threaded NPT	Model & Pipe O.D.			<a href="#">61a-f</a>	
	Model E-4 48 mm	1½" / DN40	09890Q/B		
	Model E-2 60 mm	2" / DN50	08361Q/B		
<b>Straight Through</b>					
Threaded NPT	Pipe O.D.	Model F-2			
	NPT 65 mm	2½"	12402Q/B		
Groove/Groove	Pipe O.D.	Model F-2			
	48 mm	1½" / DN40	12127Q/B		
	60 mm	2" / DN50	12058Q/B		
	73 mm	2½" / DN65	12404Q/B		

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

Table 2



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DESCRIPTION	NOMINAL SIZE	PART NUMBER	DATA PAGE
<b>Foam Concentrate Swing Check Valve</b>			
	1½" / DN40	99S-0150	--
	2" / DN50	99S-0200	--
	2½" / DN65	05497C	<a href="#">803 a-d</a>
<b>Foam Solution Test Valve</b>			
Grooved Butterfly Valve	2½" / DN65	01G-0250	--
	3" / DN80	01G-0300	
	4" / DN100	01G-0400	
	6" / DN150	01G-0600	
	8" / DN200	01G-0800	
<b>System Isolation Valve</b>			
Grooved Butterfly Valve	2½" / DN65	01G-0250	--
	3" / DN80	01G-0300	
	4" / DN100	01G-0400	
	6" / DN150	01G-0600	
	8" / DN200	01G-0800	
<b>Water Supply Control Valve</b>			
OS & Y	2½" / DN65	8068A-0250	--
	3" / DN80	8068A-0300	
	4" / DN100	8068A-0400	
	6" / DN150	8068A-0600	
	8" / DN200	8068A-0800	
<b>Foam Concentrate Shut-Off Valve</b>			
Ball Valve	1½" / DN40	T595Y66-0150	--
	2" / DN50	T595Y66-0200	
<b>ACCESSORIES FOR FOAM/WATER SPRINKLER SYSTEMS</b>			
Model D-3 PORV	½" / DN15	16970	<a href="#">287 a-b</a>
1/8" / 3 mm Restricted Orifice	½" / DN15	06555A	--
Soft Seat Check Valve	½" / DN15	03945A	--
Y Strainer	½" / DN15	01054A	--
Ball Valve	½" / DN15	10355	--
<b>Concentrate Control Valve Priming Connection Pkg.</b>			
Required to connect priming chamber		10985	--
<b>Foam Concentrate Shut Off Valve</b>			
Ball Valve	1½" / DN40	WBV-0150	--
Ball Valve	2" / DN50	WBV-0200	
OS & Y	2½" / DN65	8068A-0250	
OS & Y	3" / DN80	8068A-0300	

FOAM CONCENTRATES AND ILBP ASSEMBLIES					
FOAM CONCENTRATE			ILBP ASSEMBLY		
DESCRIPTION	BASE PART NUMBER	FOAM CONCENTRATE DATA PAGE	NOMINAL SIZE	VIKING PART NUMBER	ILBP DATA PAGE
1% AFFF C103	F14969	<a href="#">100 a-b</a>	2½"	F15006/A	<a href="#">171 a-d</a>
			3"	F15012/A	
			4"	F15018/A	
			6"	F15025/A	
3% AFFF C303	F14970	<a href="#">101 a-b</a>	8"	F15032/A	
			2½"	F15006/B	
			3"	F15012/B	
			4"	F15018/B	
3% AFFF MS C301 MS	F14971	<a href="#">102 a-b</a>	6"	F15025/B	
			8"	F15032/B	
			2½"	F15006/C	
			3"	F15012/C	
3% AFFF MS C301 MS	F14971	<a href="#">102 a-b</a>	4"	F15018/C	
			6"	F15025/C	
			8"	F15032/C	
			3% - 6% AFFF @ 3% C363	F14973	<a href="#">103 a-b</a>
3"	F15012/D				
4"	F15018/D				
6"	F15025/D				
3% - 6% AFFF @ 3% C363	F14973	<a href="#">103 a-b</a>	8"	F15032/D	
			2½"	F15006/E	
			3"	F15012/E	
			4"	F15018/E	
3% - 6% AFFF @ 3% C363	F14973	<a href="#">103 a-b</a>	6"	F15025/E	
			8"	F15032/E	
			2½"	F15006/J	
			3"	F15012/J	
3% AR-AFFF CUG	F14972	<a href="#">104 a-b</a>	4"	F15018/J	
			6"	F15025/J	
			8"	F15032/J	
			2% Hi Ex C2	F14974	<a href="#">105 a-b</a>
3"	F15012/H				
4"	F15018/H				
6"	F15025/H				
2% Hi Ex C2	F14974	<a href="#">105 a-b</a>	8"	F15032/H	

Table 3