



## TECHNICAL DATA

### WATER POWERED OSCILLATING MONITORS

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

Chemguard Water Powered Oscillating Monitors are designed to automatically discharge over a specific design area upon system activation. These are suitable for use in high risk areas such as tank farm facilities, aircraft hangars, offshore, refineries, chemical plants, and heliports.

##### Features

- The monitor and body of the oscillating unit are manufactured of brass. The water drive wheel is bronze with bronze supply gate valve.
- CWPOM is UL Listed with CMNB350, CMNB500 and CMNB750 monitor nozzles only
- Capable of flowing foam or water
- Unique water drive wheel design
- Arc of oscillation adjustable via 6 set points
- Speed of oscillation adjustable from 0°-30°/sec. (24° / sec. @100 psi) (7 Bar)
- Manual override capabilities in both horizontal and vertical degree fields
- Minimum operating pressure 40 psi (2.8 Bar)
- Maximum operating pressure 200 psi (14 Bar)
- Flow of water / foam solution through water drive wheel:
  - At 50 psi (3.5 Bar) 5 gpm (19 lpm)
  - At 100 psi (7 Bar) 8 gpm (30 lpm)
- Double reduction oil bath gearbox
- Grease fittings and two rows of stainless steel ball bearings at all rotation joints on monitor
- All brass and stainless steel construction
- Monitor has one tiller bar control for manual control
- Unit equipped with a garden hose test connection. This allows functional check of the oscillation mechanism without system flow.

#### 2. LISTINGS AND APPROVALS

See Tables 1 & 2.

#### 3. TECHNICAL DATA

##### Specifications:

See Tables 1 & 2.

##### Material Standards:

See Table 1.

##### Ordering Information:

See Table 2.

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

The vertical angle of elevation and horizontal arc of oscillation is field adjustable and can be set and locked in position. The monitor can be set to oscillate over a range of 0°-120° and the oscillation arc can be set anywhere within the 360° field of operation. Elevation range of the unit is between +80° and -40° from the horizontal plane.

#### 5. OPERATION

A water drive wheel connected to a double reduction gearbox drives the oscillating mechanism. To operate the drive wheel, a small quantity of flow is diverted from the monitor inlet. The monitor requires no external wiring or hydraulic control for operation. The drive wheel design is unique in that it does not require an inlet filter. This makes the oscillating mechanism highly reliable and less likely to fail.

#### 6. INSPECTIONS, 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 which must be followed.

**WARNING:** Any system maintenance or testing which 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.



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#### 7. AVAILABILITY

Viking Foam Products are available through a network of domestic and international distributors. See the Viking 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.

**Table 1: Oscillating Monitor Base Specifications**

Part No.	Inlet Diameter <sup>1</sup>	Discharge Diameter <sup>2</sup>	Waterway Diameter	Maximum Flow <sup>3</sup>	Weight	Material
<b>F15048<sup>4</sup></b>	4"	2-1/2"	3" (76 mm)	1250 GPM (4740 LPM)	120 lbs. (54 kg)	Brass and Stainless Steel
<b>F15049<sup>5</sup></b>	4"	3-1/2"	4" (100 mm)	2000 GPM (7570 LPM)	150 lbs. (68 kg)	Brass and Stainless Steel

<sup>1</sup> Monitor inlets are ANSI Class 150 Flat Face flanges.

<sup>2</sup> Monitor discharges are male NST Threads.

<sup>3</sup> Flow ratings are given for 100 psi (7 bar). Maximum operating pressure is 200 psi (14 bar).

<sup>4</sup> Used in assemblies with flow up to and including 1250 GPM.

<sup>5</sup> Used in assemblies with flow between 1300 and 2000 GPM.

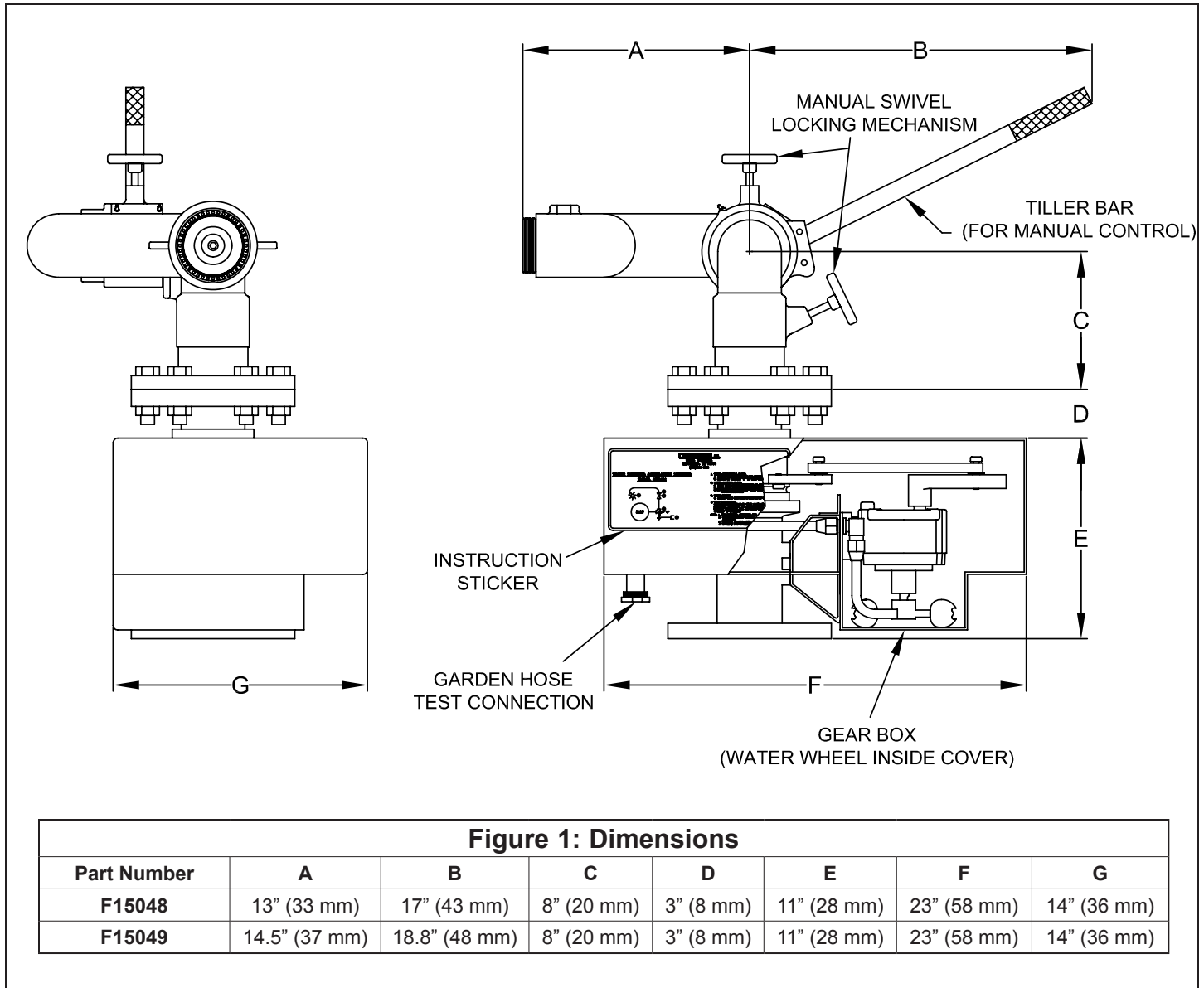


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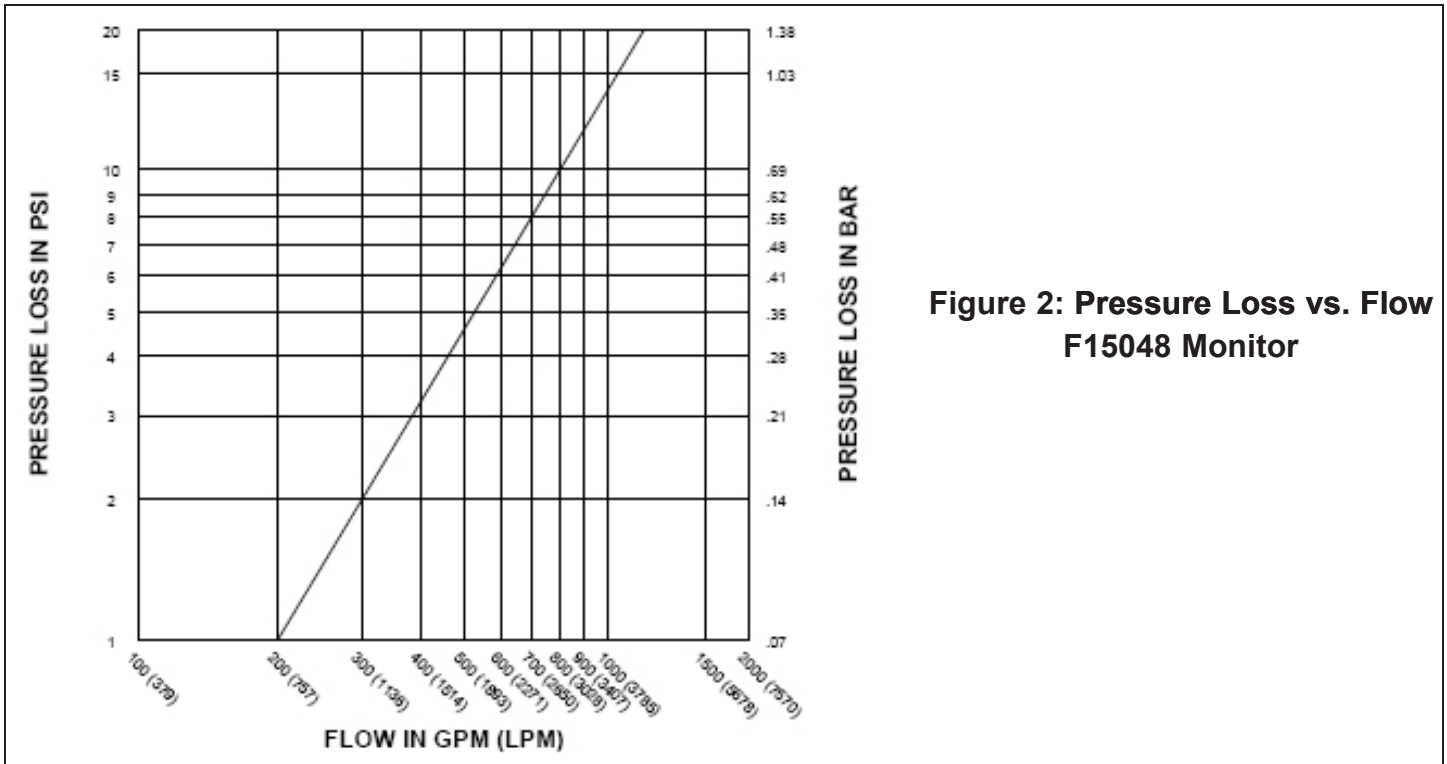


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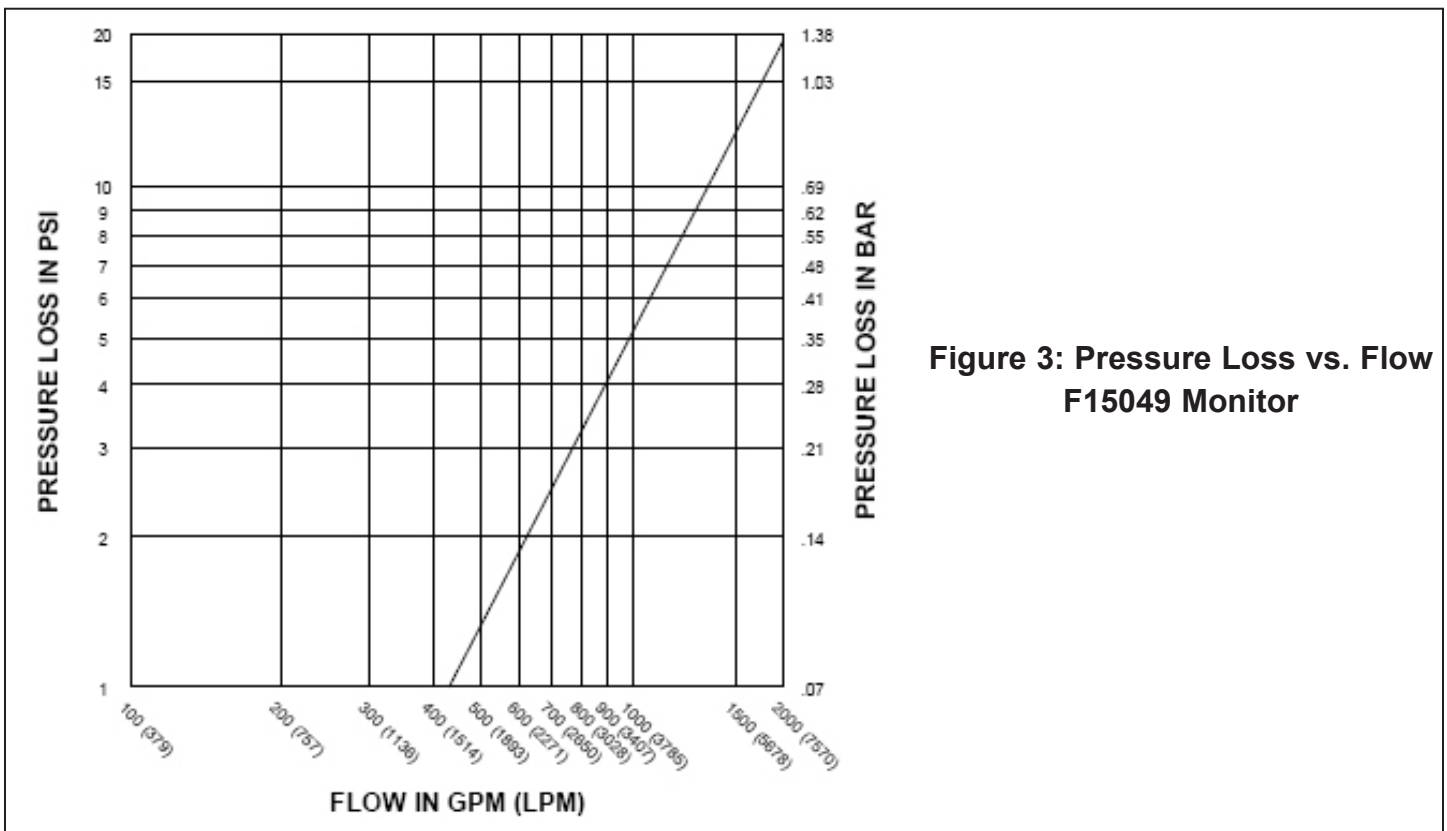
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**Figure 2: Pressure Loss vs. Flow  
F15048 Monitor**



**Figure 3: Pressure Loss vs. Flow  
F15049 Monitor**

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**Table 2: Assembly Specifications**

Viking Part Number	Includes Base (See Table 1)	Chemguard Model Number	Listings	Flow Rate	Monitor Elevation Angle	Monitor Inlet Pressure											
						50 psi (3.45 bar)				100 psi (6.9 bar)				150 psi (10.3 bar)			
						Fixed		Oscillating		Fixed		Oscillating		Fixed		Oscillating	
						Reach	Height	Reach	Height	Reach	Height	Reach	Height	Reach	Height	Reach	Height
F15050	F15048	CWPOM-350	UL Listed*	350 GPM (1325 LPM)	5°	60 ft.	8 ft.	55 ft.	8 ft.	110 ft.	10 ft.	100 ft.	9 ft.	135 ft.	12 ft.	120 ft.	10 ft.
					15°	90 ft.	15 ft.	80 ft.	14 ft.	135 ft.	20 ft.	125 ft.	18 ft.	170 ft.	23 ft.	150 ft.	21 ft.
					30°	100 ft.	25 ft.	90 ft.	23 ft.	145 ft.	32 ft.	135 ft.	30 ft.	175 ft.	39 ft.	155 ft.	35 ft.
F15051		CWPOM-500	UL Listed*	500 GPM (1893 LPM)	5°	65 ft.	9 ft.	60 ft.	9 ft.	115 ft.	10 ft.	105 ft.	9 ft.	150 ft.	13 ft.	135 ft.	11 ft.
					15°	95 ft.	16 ft.	85 ft.	15 ft.	155 ft.	23 ft.	145 ft.	21 ft.	185 ft.	25 ft.	165 ft.	23 ft.
					30°	105 ft.	26 ft.	95 ft.	24 ft.	165 ft.	36 ft.	150 ft.	33 ft.	200 ft.	44 ft.	180 ft.	40 ft.
F15052		CWPOM-750	UL Listed*	750 GPM (2839 LPM)	5°	70 ft.	10 ft.	65 ft.	10 ft.	120 ft.	11 ft.	105 ft.	11 ft.	160 ft.	14 ft.	140 ft.	13 ft.
					15°	98 ft.	16 ft.	88 ft.	16 ft.	155 ft.	23 ft.	146 ft.	21 ft.	185 ft.	25 ft.	168 ft.	23 ft.
					30°	115 ft.	28 ft.	98 ft.	25 ft.	170 ft.	36 ft.	150 ft.	33 ft.	210 ft.	45 ft.	183 ft.	42 ft.

\* UL Listed with Chemguard C301 MS (Viking Part Number F14971)

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