

Water-Powered Oscillating Monitors

Features

- Models available with standard or self-educing nozzles.
- CWPOM is UL Listed with CMNB350, CMNB500 and CMNB750 monitor nozzles. Refer to the UL Online Certifications Directory for foam concentrate - specific flow and pressure ranges.
- Materials of construction:
 - Brass: Monitor, oscillator body, nozzle
 - Bronze: Water drive wheel, speed control valve
 - Stainless Steel: Oscillator housing
- Suitable for use with most foam solutions.
- Arc of oscillation adjustable via six set points
 - 25, 40, 60, 80, 100, and 120 degrees.
- Speed of oscillation is adjustable using the speed adjustment valve. Maximum speed is approximately 30 deg/sec. Speed may vary when switching from water flow to foam solution flow at same valve adjustment setting.
- Manual override capabilities in both horizontal and vertical degree fields.
- Minimum operating pressure 40 psi (2.8 bar).
- Maximum operating pressures as high as 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.
- Single tiller bar for positioning and manual control of the monitor.
- Oscillating monitor equipped with a garden hose test connection intended to allow a functional check of the unit without flowing the system.

Description

CHEMGUARD Water-Powered Oscillating Monitors are designed to automatically oscillate over a preset arc upon system activation, allowing discharge over a wide design area without manual intervention or the use of electrical power. These are intended for use in firefighting foam systems according to NFPA 11, NFPA 409, and/or NFPA 418, typically found in high risk areas such as tank farm facilities, refineries, aircraft hangars, and heliports.

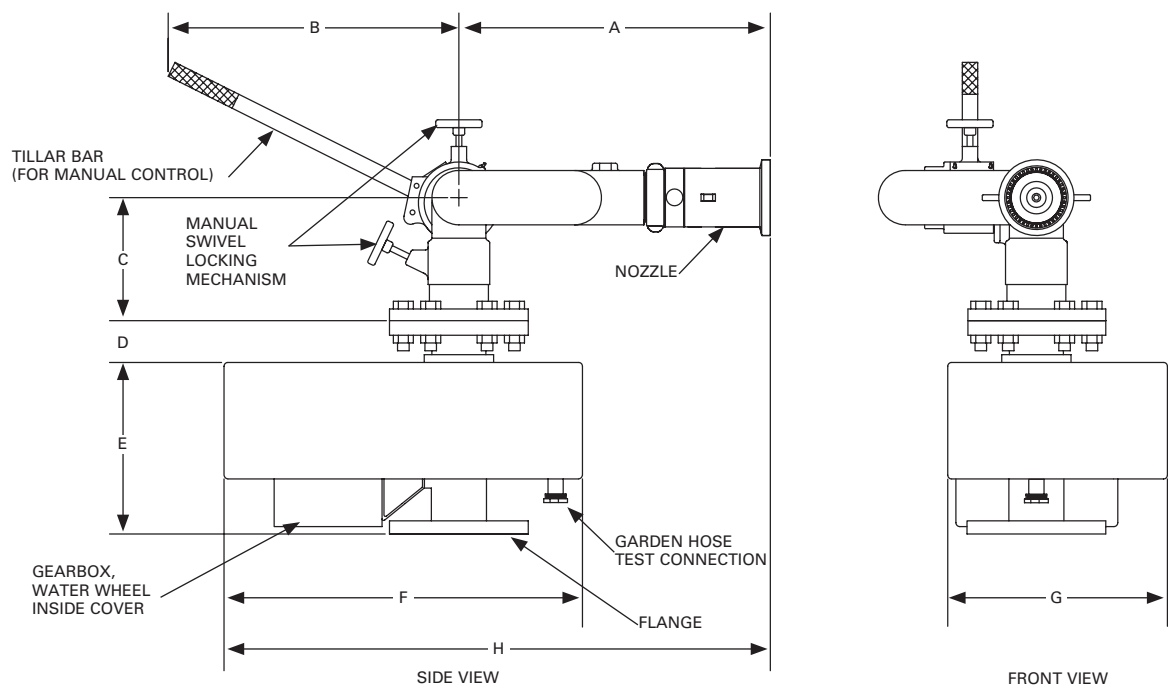


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Specifications

A water drive wheel connected to a double reduction gearbox drives the oscillating monitor. 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 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° to 120° and the location of the oscillation arc may be set anywhere within the 360° field of operation. Elevation range of the unit is between 65° and -40°

Dimensional Data



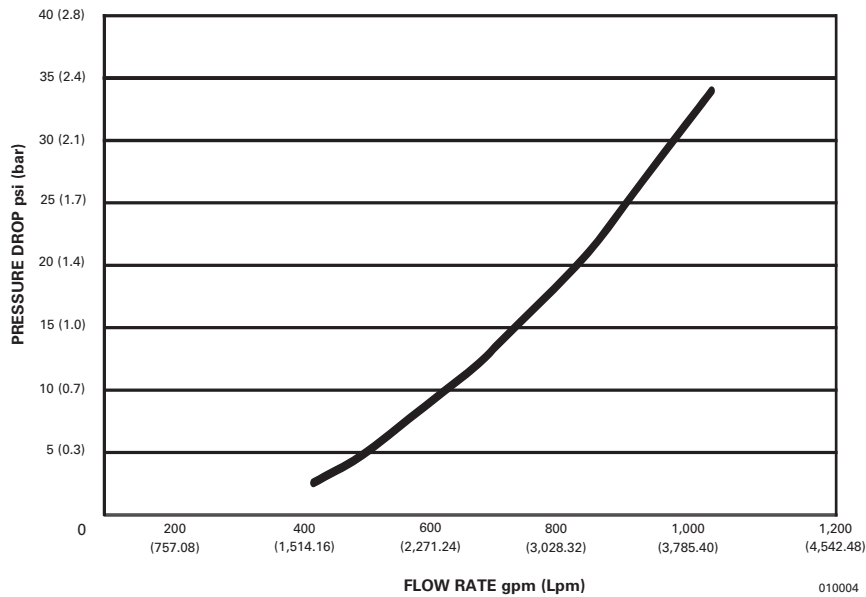
WATER-POWERED 4 IN. OSCILLATING MONITOR
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Dimensions

Part No.	Inlet in. (mm)	Discharge in. (mm)	Waterway in. (mm)	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)	E in. (mm)	F in. (mm)	G in. (mm)	H in. (mm)
CWPOM350	4 (101.6)	2.50 (63.5)	3 (76.2)	13.00 (330.2)	17.00 (431.8)	8 (203.2)	3 (76.2)	11 (279.4)	23 (584.2)	14 (355.6)	33.75(357.3)
CWPOM500	4 (101.6)	2.50 (63.5)	3 (76.2)	13.00 (330.2)	17.00 (431.8)	8 (203.2)	3 (76.2)	11 (279.4)	23 (584.2)	14 (355.6)	33.75(357.3)
CWPOM750	4 (101.6)	2.50 (63.5)	3 (76.2)	13.00 (330.2)	17.00 (431.8)	8 (203.2)	3 (76.2)	11 (279.4)	23 (584.2)	14 (355.6)	33.75(357.3)

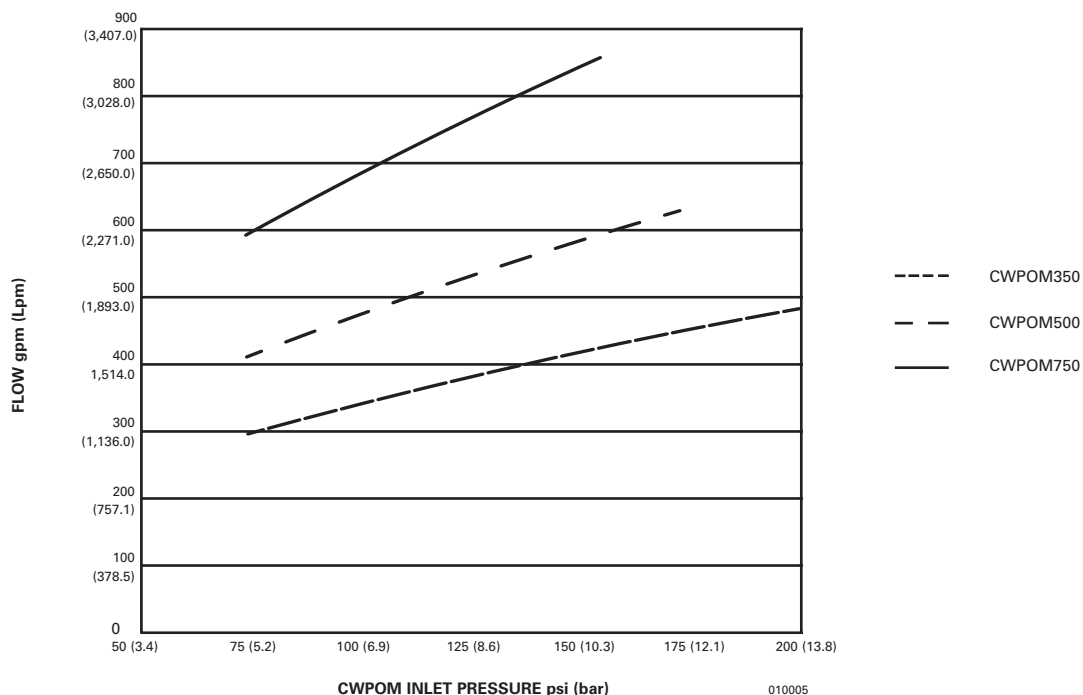
- Note:** 1. Monitor inlets are ANSI Class 150 flat face flanges.
2. Dimensions are approximate and subject to change without notice.
3. The use of butterfly type valves on 4 in. inlet, 3 in. waterway units, may require a 4 in. spool spacer section on the inlet of the monitor to avoid interference between the monitor inlet and the internal wafer of the butterfly valve.

CWPOM Pressure Drop vs. Flow Chart



Note: Pressure drop is measured with water only as the differential pressure between CWPOM inlet and discharge (just before the nozzle inlet). Data are for reference only. Actual results may vary depending on environmental and testing conditions.

CWPOM Flow vs. Pressure Flow Chart



Note: Data were obtained with water and for reference only. Actual results may vary depending on environmental and testing conditions. Operating at higher pressure and flow combinations beyond the maximum indicated in the chart for each model may lead to excessive reaction force and product damage or failure.

Water-Powered Oscillating Monitor Reference Range Data

CHEMGUARD Water-Powered Oscillating Monitor Reference Range Data – reach/height in feet - (reach/height in meters)													
Monitor Model Number	Monitor Elevation Angle (deg)	Monitor Inlet Pressure - psi (bar)											
		50 psi (3.45 bar)		100 psi (6.90 bar)		150 psi (10.34 bar)							
		Fixed	Oscillating	Fixed	Oscillating	Fixed	Oscillating						
		ft	(m)	ft	(m)	ft	(m)	ft	(m)				
CWPOM350	5	60/8	(18.0/2.4)	55/8	(17.0/2.4)	110/10	(34.0/3.0)	100/9	(31.0/3.0)	135/12	(41.0/4.0)	120/10	(37.0/3.0)
	15	90/15	(27.0/5.0)	80/14	(24.0/4.0)	135/20	(41.0/6.0)	125/18	(38.0/6.0)	170/23	(52.0/7.0)	150/21	(46.0/6.0)
	30	100/25	(30.0/8.0)	90/23	(27.0/7.0)	145/32	(44.0/10.0)	135/30	(41.0/9.0)	175/39	(53.0/2.0)	155/35	(47.0/11.0)
CWPOM500	5	65/9	(20.0/3.0)	60/9	(18.0/3.0)	115/10	(35.0/3.0)	105/9	(32.0/3.0)	150/13	(46.0/4.0)	135/11	(41.0/3.0)
	15	95/16	(29.0/5.0)	85/15	(26.0/5.0)	155/23	(47.0/7.0)	145/21	(44.0/6.0)	185/25	(56.0/8.0)	165/23	(50.0/7.0)
	30	105/26	(32.0/8.0)	95/24	(29.0/7.0)	165/36	(50.0/11.0)	150/33	(46.0/10.0)	200/44	(61.0/13.0)	180/40	(55.0/12.0)
CWPOM750	5	70/10	(21.0/3.0)	65/10	(20.0/3.0)	120/11	(37.0/3.0)	105/11	(32.0/3.0)	160/14	(49.0/4.0)	140/13	(43.0/4.0)
	15	98/16	(30.0/5.0)	88/16	(27.0/5.0)	155/23	(47.0/7.0)	146/21	(45.0/6.0)	185/25	(57.0/8.0)	168/23	(51.0/7.0)
	30	115/28	(35.0/9.0)	98/25	(30.0/8.0)	170/36	(52.0/11.0)	150/33	(46.0/10.0)	210/45	(64.0/14.0)	183/42	(56.0/13.0)

Note: 1. Throw distance and heights noted are with water flow only and provided discharge nozzle in no wind conditions. Distances and heights will be reduced slightly with foam solution. Wind or other environmental conditions can affect ranges as well.
 2. Maximum discharge range should be achieved at approximately 30 degrees to 35 degrees elevation.
 3. Some ranges are based on extrapolation of existing data and observations.
 4. Maximum height of discharge stream is usually found at approximately 65% of maximum discharge range from nozzle, not at maximum discharge range.

Note: The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement. CHEMGUARD and the product names listed in this material are marks and/or registered marks. Unauthorized use is strictly prohibited.

Ordering Information

The CHEMGUARD Water-Powered Oscillating Monitor part numbers and approximate shipping weights are identified in the following table. Part numbers vary according to requirements.

Part No.	Description	Approximate Shipping Weight	
		lb	(kg)
CWPOM350*	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CMNB350, 350 gpm Nozzle	134	(60.8)
CWPOM500*	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CMNB500, 500 gpm Nozzle	134	(60.8)
CWPOM750*	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CMNB750, 750 gpm Nozzle	134	(60.8)
704635	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CEN350, 350 gpm Self-Educting Nozzle	136	(61.8)
704636	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CEN500, 500 gpm Self-Educting Nozzle	136	(61.8)
704637	4 in. Flanged Inlet, 2 1/2 in. MNST Discharge, CEN750 750 gpm Self-Educting Nozzle	136	(61.8)

***UL Listed:** Refer to the UL Online Certifications Directory for foam concentrate - specific flow and pressure ranges.

Note: Contact Technical Services to obtain an electronic copy of the CHEMGUARD CWPOM Water Powered Oscillating Monitor Operation and Maintenance Manual (Part Number 704612).

Note: Flow rates are nominal at 100 psi (6.9 bar) inlet to the nozzle.

Maximum operating pressure:
200 psi (14 bar) for CWPOM350
175 psi (12 bar) for CWPOM500
150 psi (10 bar) for CWPOM750