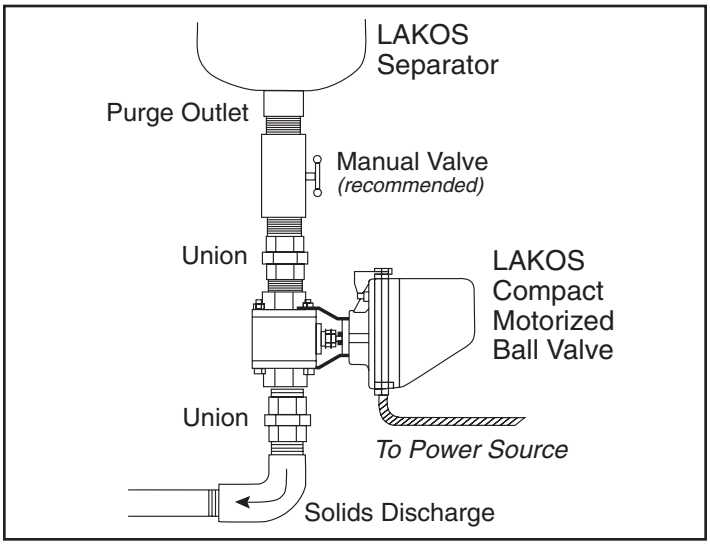
Compact Motorized Ball Valve

CW-MBV Series

SUGGESTED INSTALLATION



Automatic purging for maintenance-free operation. Simple. Reliable. Effective.

Purging separated solids from a LAKOS Separator is important. Automating that function is intelligent. The LAKOS Compact Motorized Ball Valve makes it easy. Featuring integrated programming circuitry, this valve can be set to purge as often as every 15 minutes ... or as seldom as every 3-3/4 hours. Purge duration can be set anywhere from 24 to 90 seconds. Settings are fixed with a simple arrangement of switches, located within the actuator housing.

- Eliminates routine maintenance
- Minimizes water loss and concentrates solids for easy handling (consult factory for complete solids-handling systems)
- Straight-through ball valve; quick open-close actuator
- NEMA 4 watertight actuator housing, suitable for indoor/outdoor installation
- Solid-state circuitry

General Specifications

- Maximum operating pressure: 150 psi (1055 kPa)
- Operating temperature range: 40-150°F (5-65°C)
- Standard valve body: Bronze; also available in stainless steel for added corrosion/abrasion resistance
- Cast-aluminum actuator housing
- Stainless steel ball with teflon seat
- Single phase induction motor; 115 VAC; 1.8 ampere (For 220 VAC installation, an external transformer is available, when specified, at an additional cost)

Valve Model	Line Size NPT, female	Valve Weight lbs.	kg
CW-07-MBV	3/4 inch	8	4
CW-15-MBV	1-1/2 inch	15	7
CW-20-MBV	2 inch	16	7

Instructions for Programming Valve

Set internal switches (Nos. 1 through 8) for desired purging duration and frequency. "O"- Switch ON "X"- Switch OFF

PURGE DURATION

	Switch No.			
sec.	1	2	3	4
24	X	X	O	X
30	O	X	O	X
36	X	O	O	X
42	O	O	O	X
48	X	X	X	O
54	O	X	X	O
60	X	O	X	O
66	O	O	X	O
72	X	X	O	O
78	O	X	O	O
84	X	O	O	O
90	O	O	O	O

"O"- Switch ON "X"- Switch OFF

PURGE FREQUENCY

	Switch No.			
hr:min.	5	6	7	8
:15	O	X	X	X
:30	X	O	X	X
:45	O	O	X	X
1:00	X	X	O	X
1:15	O	X	O	X
1:30	X	O	O	X
1:45	O	O	O	X
2:00	X	X	X	O
2:15	O	X	X	O
2:30	X	O	X	O
2:45	O	O	X	O
3:00	X	X	O	O
3:15	O	X	O	O
3:30	X	O	O	O
3:45	O	O	O	O

See reverse for additional specifications

LAKOS®
Separators and Filtration Solutions

Installation, Operation & Programming

Installation

See illustration on reverse for proper installation & connection. Valve should be installed prior to any pipe elbows to avoid solids clogging prior to valve. A manual valve is recommended between the separator's purge outlet and the valve to allow for removing the valve if servicing is required. Manual valve should remain fully open when automatic valve is in use.

Proper Wiring

Terminal #1 - To power supply
Terminal #2 - To power supply
Gr. - Ground

Suitable conduit is recommended.

Operation

This valve functions according to two distinct operations:

Cycle Time – How often the valve shall open
Purge Duration – How long the valve is open for purging

The integral timer triggers the actuator to open and close as programmed (see below). Interruption of power will cause the timer to reset. When power is restored, the valve will open for its programmed duration and begin its programmed cycle time.

Programming

Cycle time and purge duration are set by arranging a series of small switches. These switches are located within the actuator housing, accessible by removing the housing cover. CAUTION: Disconnect/interrupt power to the actuator before removing cover to program the valve.

IMPORTANT: Recommended minimum purge duration is 24 seconds, thereby allowing time for valve to open/close and flush accumulated solids from separator at a full-open position. Instructions for programming the switches are labeled inside the actuator housing and noted on reverse for your convenience. Once the switches have been set, be sure to re-attach the actuator housing. Note the o-ring for protection against moisture and dust.

To manually open the valve for purging, press and hold the external button on the actuator housing. Valve will open for the programmed purge duration and begin a new cycle, as programmed.

Purge Size	24 Second Duration
3/4-inch	7.2 - 28.8 gallons 28.8 - 108 liters
1 1/2-inch	28.8 - 120 gallons 108 - 456 liters
2-inch	60 - 228 gallons 228 - 864 liters

Limited Warranty

All products manufactured and marketed by this Corporation are warranted to be free of defects in material or workmanship for a period of one year from date of delivery.

If a fault develops, notify us, giving a complete description of the alleged malfunction. Include the model number(s), date of delivery and operating conditions of subject product(s). We will subsequently review this information and, at our option, supply you with either servicing data or shipping instructions and returned goods authorization. Upon prepaid receipt of subject product(s) at the instructed designation, we will then either replace such product(s) at our option and, if determined to be a warranted defect, we will perform such necessary product repairs or replace such product(s) at our expense.

This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, accident, normal expected wear, improper installation or operation contrary to factory recommendations. Nor does it cover equipment that has been modified, tampered with or altered without factory authorization.

No other extended liabilities are stated or implied and this warranty in no event covers incidental or consequential damages, injuries or costs resulting from any such defective product(s).

Lakos Separators are manufactured and sold under one or more of the following U.S. Patents:
5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,571,416; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

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Printed on recycled paper

LS-252P (Rev. 9/13)