Auto Purge with Motorized Ball Valve

ABV Series

Heavy-duty solids purging systems to eliminate routine manual purging. Fully electric - fully automatic.

Flush separated solids from your LAKOS Separator at intervals you select: never too often, never too late.

- Saves valuable liquids
- Assures maximum performance
- Eliminates costly manual routine labor
- Promotes concentrated solids purging for easy handling

The durable LAKOS Motorized Ball Valve is capable of handling all fine solids, fibrous solids and mild abrasives. It's also effective for purging all typical solids (specific gravities less than 3.6). The valve's pressure-sealed stem arrangement allows line pressure to actually enhance its shut-off sealing ability, providing further resistance against leakage.

The specially matched actuator (to operate the valve) boasts a long list of manufactured features to assure trouble-free operation. Included are:

- Heat-treated, high alloy gears
- Rugged, high-torque shaded-pole single phase motor
- Integral overload protection
- Permanently lubricated housing eliminates routine maintenance
- NEMA-4x rated valve housing
- Voltage options 120 or 240 VAC

SUGGESTED INSTALLATION

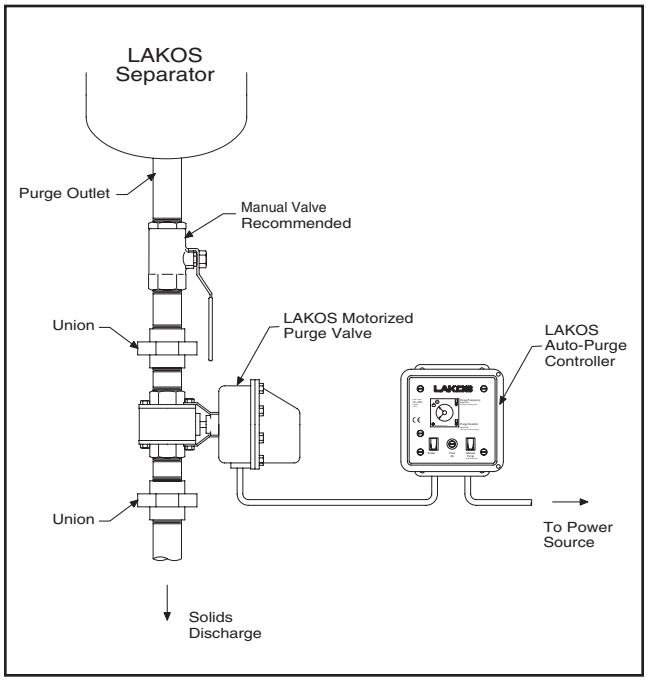
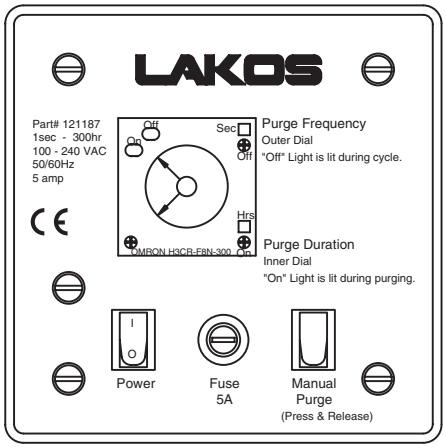


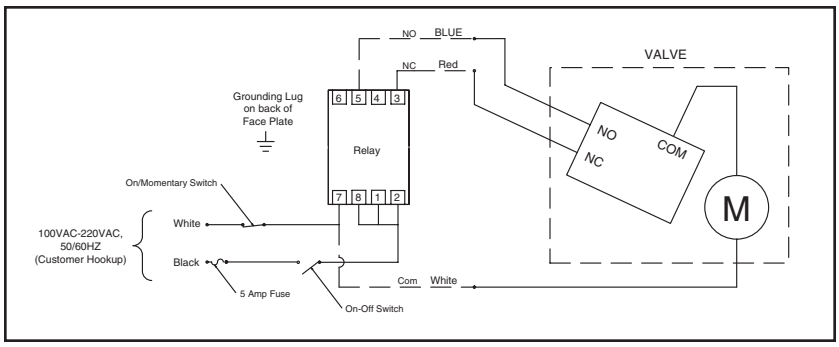
ILLUSTRATION OF CONTROLLER FACE



Controller

- Fully unattended automatic operation
- Serves worldwide single-phase voltages, from 100 to 240 VAC, 50/60Hz (5 amp max.) Consult factory for additional voltage options
- 0-300hr for programming purge cycle frequency and duration
- Solid state reliability; no routine maintenance required
- Durable NEMA-4x rated housing; IP 66 equivalent
- Compression molded, fiberglass reinforced polyester housing
- Box is UL, CSA rated, completed controller meets CE requirements
- Non-volatile memory - all controller settings are maintained in the event of a loss of power; no programming required

WIRING DIAGRAM



See reverse for additional specifications

LAKOS®
Separators and Filtration Solutions

LAKOS Motorized Ball Valves and Actuators

Operation

The LAKOS Motorized Ball Valve functions according to the program of the LAKOS controller. To purge solids from the LAKOS Separator, the controller trips a relay which then energizes the valve's actuator, driving the valve open to allow solids to pass. Purging is stopped when the LAKOS controller, as programmed, again trips the relay (this time to its original position), thereby re-energizing the actuator to drive the valve closed, which halts purging.

Specifications

- Maximum Valve Pressure: 150 psi (10.3 bar). For higher pressures, consult factory
- Temperature Range: 0°-250°F (4.4°-121°C)
- Standard valve body is bronze. Also available in stainless steel for added corrosion resistance
- Stainless steel ball with sealant seat

Valve Model	**Line Size** N.P.T., female	**Valve Weight** lbs	kg
ABV-07	3/4 inch	16	7
ABV-15	1-1/2 inch	23	11
ABV-20	2 inch	25	12

NOTE: Larger valve sizes also available. Consult factory for details.

Liquid Loss

When the application allows that purging is the final handling of the separated solids, it may be important to know the volume of fluid which may be lost when purging. This information is subject to variations, based on separator size, flow rate and system pressure. Volumes noted here identify the total volume purged (both liquid and solids).

Purge Size	**20 Second Duration***
3/4-inch	6-24 gallons 24-90 liters
1 1/2-inch	24-100 gallons 90-380 liters
2-inch	50-190 gallons 190-720 liters

* Recommended minimum purge duration is 20 seconds, thereby allowing time for valve to open/close and flush accumulated solids from separator at a full-open position.

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.

LAKOS®
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