Easily Remove Sand, Dirt, and Silt From Groundwater

**LGS Features and Benefits:**

- **Industry First - Independently Tested:** Only LAKOS LGS Separators are independently tested by a 3rd party for filtration performance. See page 4 for details.

- **Premium Filtration:** LGS Separators are uniquely engineered to remove settleable solids commonly found in Groundwater; LGS models remove 99% of solids down to 74 microns at 2.6 SG.

- **No Maintenance Filtration:** LAKOS LGS Centrifugal Separators use centrifugal action to remove sand, dirt, and silt from groundwater. There are no screens, moving parts, discs, or fill media to replace or maintain.

- **No Backwashing:** LAKOS LGS Centrifugal Separators do not require backwashing to remove captured dirt; automated periodic purging removes captured debris.

- **Low and Steady Pressure Loss:** LAKOS LGS Separators operate at a steady pressure loss; Consistent pressure loss as low as 3 psid.

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**Remove 99% of Sand and Silt**

<table>
<thead>
<tr>
<th>Flow Range</th>
<th>Maximum Standard Pressure Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>225 - 2,450 GPM</td>
<td>150 PSI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Temperature</th>
<th>Pressure Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>180° F (82.2° C)</td>
<td>As Low as 3 psid</td>
</tr>
</tbody>
</table>

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**Accessories**

- **Installation Kit:** Installation Kit contains parts for easier, more professional installation.

- **Automatic Ball Valve and Controller Kit:**

  - Automatic Ball Valve Kit automates separator purge cycles. Nema 4x Controller provides ability to adjust purge frequency and duration.

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Pressure gauges not included.
FLOW VS. PRESSURE LOSS CHART

Flow Rate


SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Flow Range</th>
<th>Inlet/Outlet Grooved Coupling</th>
<th>Purge Size Male N.P.T.</th>
<th>Collection Chamber Capacity</th>
<th>Weight US gpm/m³/hr</th>
<th>Weight lbs/kg with Water lbs/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGS-0225-L</td>
<td>225-500</td>
<td>4” 1-1/2”</td>
<td>2</td>
<td>6</td>
<td>299/136</td>
<td>489/222</td>
</tr>
<tr>
<td>LGS-0385-L</td>
<td>385-850</td>
<td>6” 1-1/2”</td>
<td>3</td>
<td>11</td>
<td>446/202</td>
<td>876/397</td>
</tr>
<tr>
<td>LGS-0750-L</td>
<td>750-1450</td>
<td>8” 1-1/2”</td>
<td>6</td>
<td>23</td>
<td>758/344</td>
<td>1758/797</td>
</tr>
<tr>
<td>LGS-1150-L</td>
<td>1150-2450</td>
<td>10” 2”</td>
<td>15</td>
<td>57</td>
<td>1311/595</td>
<td>3711/1683</td>
</tr>
</tbody>
</table>
Dimensions and Installation Instructions

Inlet/Outlet Pressure Gauge Taps
1/4-inch NPT female; required at both inlet and outlet for proper flow verification

Lifting Ring
For installation purposes

DIMENSIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in</td>
<td>mm</td>
<td>in</td>
</tr>
<tr>
<td>LGS-0225-L</td>
<td>39</td>
<td>978</td>
<td>69</td>
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<tr>
<td>LGS-0385-L</td>
<td>48</td>
<td>1226</td>
<td>86</td>
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<tr>
<td>LGS-0750-L</td>
<td>64</td>
<td>1619</td>
<td>115</td>
</tr>
<tr>
<td>LGS-1150-L</td>
<td>84</td>
<td>2121</td>
<td>153</td>
</tr>
</tbody>
</table>

Installation Instructions

1. LAKOS LGS Separators are shipped on a wooden skid with the two support legs detached. A large ring, located on the unit’s side, is provided for hoisting as necessary.

2. A suitable foundation is necessary to accommodate the separator’s weight including water (see chart, page 2). Tie-down bolts are recommended in the base of the legs. Prior to installation, inspect the inlet, outlet and purge of each unit for foreign objects that may have entered the unit during shipping or storage.

3. Proper purge hardware is required to flush separated sand from the separator. This equipment should be installed before start-up.

4. Pipe connections to the inlet and outlet of LAKOS LGS Separator should be a straight run of at least five pipe diameters to minimize turbulence and optimize performance. Pipe size is not a factor in selecting the proper model of a LAKOS Separator. Rather, all LAKOS Separators operate within a prescribed flow range.

5. Use appropriate hardware to match inlet and outlet size. Grooved couplings are not included with the separator.

6. The minimum inlet pressure is the expected pressure loss through the separator, plus downstream requirements. **Pressure gauges are required at both inlet and outlet to monitor pressure loss and proper system flow (Pressure gauges not included).** If the separator is operated at open discharge, a valve is recommended at the outlet, set to create a backpressure of 5 psi (0.3 bar).

7. LAKOS LGS Separators must be installed on the discharge of a pumping system. No other pressure or power is required to operate a LAKOS Separator.

8. Winterizing is important if the separator is to remain idle in freezing temperatures. Drain water as necessary to avoid bursting due to water-ice expansion.
Filtration Test completed on Lakos Separator – LGS-0385-L

The filter assembly was installed with test components defined as follows installed in the following order starting upstream:

1) 4"Venturi-type flow meter  
2) 55 micron 4 disc filter assembly  
3) 6" pipe spool with sand separator injection pump  
4) Separator under test  
5) 6" pipe spool  
6) 6" Butterfly valve  
7) 20 micron 4 disc filter assembly

Test Conditions: 495 gpm

Test Sample Breakdown (Grams)
Sample size: 250 grams
Recovered grams from downstream filters: 2.7g
Filter efficiency: 246.18 / 250 = 98.20%
Note: Media: Quartz, Silica Dioxide, specific gravity: 2.6

ICWT has experience with hydraulics, pumps, filters, and valves. ICWT was recently certified by IAPMO R&T - North America's premier third party certification body for plumbing and mechanical products. More information about the testing agency and testing process can be found at www.californiawater.org.

This test agency is available and approachable to confirm its test methodologies and results.

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