**Recommended Solution**

“My water was so bad that the toilets and washing machine would plug up and not work. Now I don’t even have to worry about drinking sand in my house.”

Paul Harper
Shepherd, MA

**Flow Range:** 5-70 U.S. gpm (1.1-15.9 m³/hr)

**Maximum Pressure:** 100 psi (6.9 bar)

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**The 3-Minute Settling Test**

A simple approach to understanding which types of solids are removed by a LAKOS Centrifugal Separator is to think of them as “settleable solids.” In other words, the solids (sand, dirt, etc.) that are heavy enough to settle in the bottom of a drinking glass in less than 3 minutes. Everything that settles in less than 3 minutes can usually be removed by a single pass through a LAKOS Centrifugal Separator.

![Diagram of Sand Purge](image)

**Sand Purge**
Open valve periodically to flush away separated particles (can be automated).

3 Minutes Later...
How Much Has Settled?

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**Features and Benefits:**

**SandMaster Plus**
- Centrifugal Separator
- Durable stainless steel outer body construction (Model SMP)
- Limited 5-year warranty
- For more technical information, refer to LAKOS form LS-679

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FOR SAND AND SEDIMENT
Heavy Duty/Higher Pressure Range

Sand Separators

ILB/ILS

Specialty Applications

“Our sand trap didn’t keep the sand from coming through the plumbing fixtures. Your separator solved the problem.”

Richard Adams
Oklahoma City, OK

Flow Range:
3-290 U.S. gpm (0.5-66 m³/hr)
Maximum Pressure:
150 psi (10.3 bar)

Features and Benefits:
• Centrifugal Separator
• Greater temperature resistance
• High duty construction
• Higher pressure capability than SandMasters
• Available in rugged carbon steel (Model ILB) or stainless steel (Model ILS)
• For more technical information, refer to LAKOS form LS-289

Pump Protection Sand Separators

SUB-K

Extend Life of Submersible Pumps

“A LAKOS Separator more than doubled the life of my submersible pump.”

Ed Hull, Owner, Operator
Dixon Ridge Dairy, Dixon, CA

Flow Range: 3-99 U.S. gpm (0.7-23 m³/hr)

Reduce sand abrasion and wear to submersible pumps and extend pump life by 5X or more. The SUB-K uses controlled centrifugal action to prevent sand from entering the pump, reducing wear to impellers and other vital components. Easy to install into water wells, the SUB-K attaches to the end of a submersible pump. Pump flow is not affected, but a 2-7 psi pressure loss can be expected.

Features and Benefits:
• Centrifugal Separator
• Protects submersible pumps from sand abrasion wear
• Dramatically extends pump life
• Saves on pump energy costs by maintaining optimum efficiency
• Injection molded composite materials
• For submersible pumps with flows above 99 U.S. gpm (23 m³/hr) and for all turbine pumps, refer to the LAKOS PPS Separator

For more technical information, refer to LAKOS form LS-304

FOR SANDY WELLS
## Application Selection Guide

### Filtration Solutions

<table>
<thead>
<tr>
<th>Contamination</th>
<th>Problem</th>
<th>Recommended Filtration</th>
<th>Benefits</th>
<th>Flow Range</th>
<th>LAKOS Solution</th>
</tr>
</thead>
</table>
| Sediment (sand, silt, rust and scale) in the water well | • Excessive wear to pump's impellers and bearings  
• Expensive repairs and replacements  
• Excessive energy usage | Pump protection separator installed on suction of submersible pump | • Eliminates excessive wear to pump's impellers and bearings  
• Helps maintain pump's efficiency and saves money by reducing energy costs  
• Extends pump life by 5 times or more | 3-99 U.S. gpm  
0.7-23 m³/hr | Submersible Pump Protection Sand Separator  
Model: SUB-K |
| Sediment (sand, silt, rust and scale) pumped from water well | • Clogged faucet aerators and screens  
• Plugged inlet screens to home appliances  
• Malfunctioning or worn sprinkler nozzles  
• Fouled water conditioning equipment  
• Inefficient operating water heaters  
• Worn pumps leading to excessive pumping and high energy costs  
• Unscheduled shutdowns for maintenance | Centrifugal sand separator for residential domestic water installed between the pump and pressure tank | • Centrifugally removes sand and other sediment up to 98% of 200 mesh  
• No moving parts to wear out; no screens or filter elements to clean or replace  
• Keeps home appliances and lawn sprinkler systems operating effectively and efficiently | 5-70 U.S. gpm  
1.1-16 m³/hr | Centrifugal SandMaster in stainless steel with plastic internals  
Model: SMP |
| Excessive Sediment (sand, silt, rust, scale) pumped from water well | All the problems listed above, and also:  
• Excessive sediment  
• Corrosive water  
• Higher pressures up to 150 psi (10 bar)  
• Flow rates in excess of 70 gpm. (15.9 m³/hr) | Heavy duty centrifugal sand separator installed between the pump and pressure tank | All the benefits of the LAKOS SandMaster Series (see above), and also:  
• 150psi operating pressure  
• Higher flow rate capability | 3-290 U.S. gpm  
0.5-66 m³/hr | Centrifugal Sand Separator in carbon or stainless steel  
Models: ILB  
ILS |