LAKOS®

Separators and Filtration Solutions

www.lakos.com

RESIDENTIAL FILTRATION

Residential Filtration

For Residential Domestic Water

SandMaster SandMaster plus

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

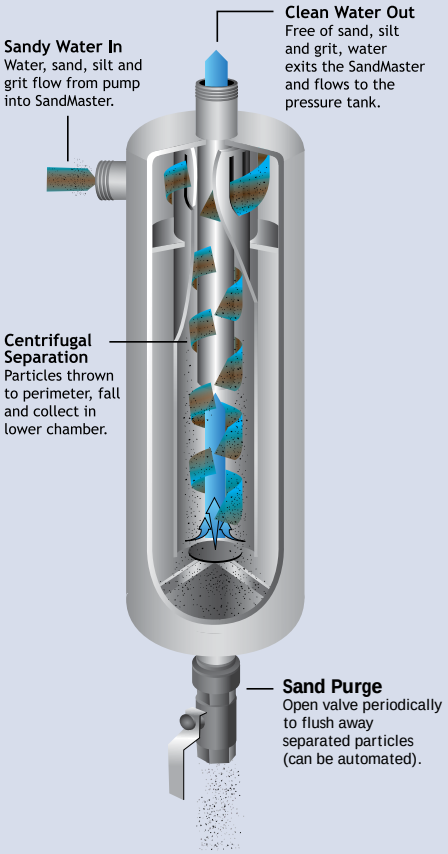
Flow Range: 5-70 U.S. gpm (1.1-15.9 m³/hr)
Maximum Pressure: 100 psi (6.9 bar)

Model H2O

Model SMP

Separate yourself from sand problems with SandMaster. The LAKOS SandMaster Separator removes settleable sand, silt and grit from your water system. No screen or cartridges to clean or replace. Protects sprinkler nozzles from wear and clogging. Extends the life and operating cycles of water softeners, under-sink reverse osmosis systems and water treatment cartridge systems. Eliminates build-up in hot water heaters, ice-makers, toilet tanks, washing machine screens, and other water appliances.

Easily automated for maintenance-free operation. Installs easily between your pump and pressure tank without worry about clogging or flow/pressure loss.



ACCESSORIES FOR SANDMASTERS AND ILB/ILS

AutoMBV | AccuPurge | AutoPurge | Visual Purge | Separator Mounting Brackets

Features and Benefits:

SandMaster

- Centrifugal Separator
- Economical carbon steel outer body construction (Model H2O)
- Limited 1-year warranty
- For more technical information, refer to LAKOS form LS-678

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

Heavy Duty/Higher Pressure Range

Sand Separators
ILB/ILS

For Residential Domestic Water

TWIST II CLEAN™
INLINE WATER FILTERS

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)

Model ILB Model ILS

Economical Solution

Innovative NEW Technology!

Flow Range: 1-78 U.S. gpm (0.2-17.7 m³/hr)
Maximum Pressure: 100 psi (6.9 bar)

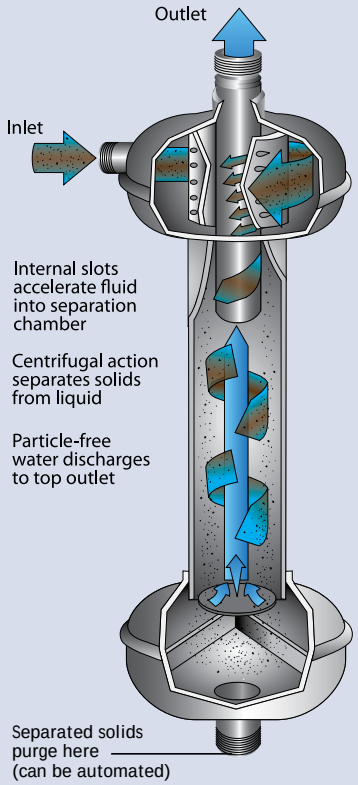
Model T2C

Much like the LAKOS SandMaster products, the ILB/ILS offers the added benefits of greater pressure capabilities, higher flow rates, and much higher temperature resistance. Heavy duty construction typically withstands even the toughest environmental conditions. Available in carbon and stainless steel.

ILB/ILS Legs

Features and Benefits:

- Centrifugal Separator
- Greater temperature resistance
- Heavy duty construction
- Higher pressure capability than SandMasters
- Available in rugged carbon steel (Model ILB) or stainless steel (Model ILS)
- For flow rates above 290 U.S. gpm (66 m³/hr), refer to the LAKOS IHB Separator
  - For more technical information, refer to LAKOS form LS-289



Easy to install. Easy to use. Just TWIST to CLEAN. An inline filter for organic, sand and sediment removal from residential water systems.

Features and Benefits:

- Quick and easy cleaning (less than 20 seconds)
- No leaks or other watery messes
- Larger screen surface area (over 200% larger than competitor designs)
- Cleans COMPLETELY after backflush
- No need to depressurize the whole system to clean element filter
- Large selection of mesh filter sizes can adjust to different needs
- Sunshield accessory available
- For more technical information, refer to LAKOS form LS-870

FOR ORGANICS, SAND, AND SEDIMENT

For Submersible Pumps

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

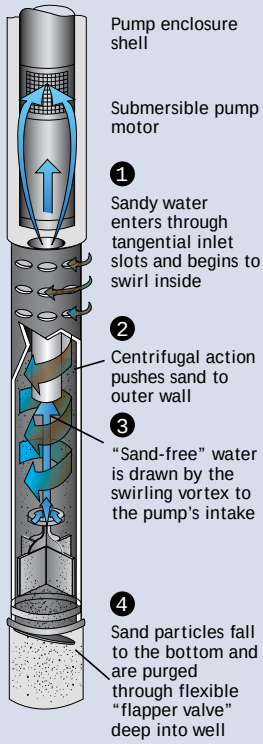
Flow Range: 3-99 U.S. gpm (0.7-23 m³/hr)

Model SUB-K

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

The Use of Cartridge Filters

Liquid filtration can be accomplished in a variety of ways. Cartridge filters are effective in removing organics and a low volume of solids from water. Quite often, however, additional filtration should be installed BEFORE the cartridge filter. This "pre-filter" step is needed to remove larger particles, sand, and higher volume solids which will clog a cartridge filter very quickly.

Extremely fine particles can be removed by cartridge filters. LAKOS offers a full range of solutions.

LAKOS manufactures a variety of filtration products, which can be used as either a pre-filter or as the primary filter in a water system. See the Product Selection Guide on in this brochure to determine which LAKOS product is best for your situation.

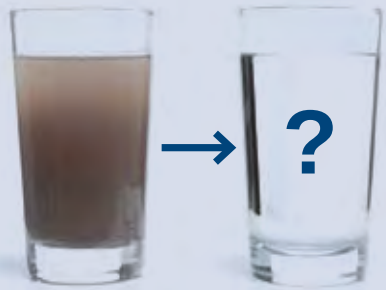
The Advantages of LAKOS Centrifugal Separators

All LAKOS Residential Centrifugal Separators share these unique features:

- Innovative patented design
- No moving parts to wear out or replace
- Low and steady pressure loss
- No routine maintenance
- Minimal water loss
- Energy and water saving technology
- Removes 98% of particles 200 mesh (74 microns) and larger
- NSF Certified as low lead products and compliant with California's drinking water standard, according to Health and Safety Code Section AB1953

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.



3 Minutes Later...
How Much Has Settled?

Application Selection Guide

FILTRATION SOLUTIONS					
Contamination	**Problem**	**Recommended Filtration**	**Benefits**	**Flow Range**	**LAKOS Solution**
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 m^3/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 m^3/hr	**Centrifugal SandMaster** in either carbon or stainless steel **Models:** **• H20** **• 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 m^3/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 m^3/hr	**Centrifugal Sand Separator** in carbon or stainless steel **Models:** **• ILB** **• ILS**
Moderate Sediment (sand, silt) and/or Organics **Varying flow rates and pressures**	Clogging of water fixtures, aerators, appliances and lawn irrigation systems	Sediment Screen Filter (Spin-Down)	• Quick & easy to clean • Simple & economical • Large selection of mesh filter sizes	Up to 78 U.S. gpm Up to 17.7 m^3/hr	**TwistIIClean Inline Water Filter** **Model: T2C**
Light solids concentrations, fine sand and/or organic material	Fouled/contaminated water conditioning and treatment systems, reverse osmosis systems	Cartridge Filter	Filters water before final use, capturing impurities and particulates in a filter that can be easily replaced when needed		**Cartridge Filters** **Model: CAR**

Solving "Solids-from-Liquid" Operating Challenges

Founded in 1972 and based in Fresno, California, LAKOS Separators and Filtration Solutions is a leading provider of solids separation and filtration solutions for a variety of applications. In the groundwater, residential, and irrigation markets, we distribute our products through technically trained resellers in more than 40 countries around the world. Our commitment to continuous innovation has resulted in a patented product range that continues to evolve to meet the world's ever demanding filtration needs.

Other Filtration Solutions from LAKOS

Pump Protection Separator PPS

Water well pump protection separator for turbines and higher flow submersible pumps (above 100 U.S. gpm 23 m^3/hr)

High Flow Sand Separator IHB

Centrifugal sand separators for higher flows (up to 4350 U.S. gpm, 988 m^3/hr)

Self-Cleaning Pump Intake Screen PC

Self-cleaning pump intake screens for open source water

Sand Media Filters Proll

Fusion-bonded, powdercoated carbon steel sand media filtration systems

Backwash Reduction Separator BRS

A pre-filter to a sand media filter, reducing sand filter backwashing cycles, energy and water loss

Sand Media Filters SST

Stainless steel sand media filtration systems

For more information about these products, refer to the Agricultural Irrigation Filtration Brochure, LS-848.

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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