

SPIRALIFT® SL Series

Fine Screening & Washing

The SPIRALIFT® is a highly reliable screening system with few moving parts that is as simple in design as it is effective in operation. This unit screens, washes and transports solids to a convenient discharge point. The SPIRALIFT is provided in several configurations to closely match your application size, capacity and screening requirements.

The core of the SPIRALIFT system is an inclined shaftless screw screen. Solids carried by the liquid flow are captured in a fine semicircular screen basket and swept from it by special nylon brushes affixed to the perimeter of the auger. The solids are washed by high-impact spray nozzles and conveyed up the unit transport by the auger. As the solids move up the transport, liquids drain back into the system reducing the moisture prior to discharge.



*The SPIRALIFT SL:
intergrated with a
grinder.*



*The SPIRALIFT S:
precision screw
screen.*

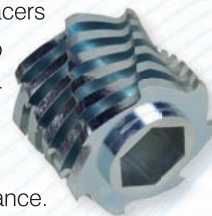
**Dependable Fine Screening and Washing | Output Particles Emit Less Odor
Organics Remain in the System | Low Headroom Above Discharge | Superior Solids Capture**

The SPIRALIFT SL offers the benefits of shaftless screw screen technology coupled with a rugged TASKMASTER grinder. In operation, the solids are first ground by the TASKMASTER grinder. The ground particles are washed by the turbulent channel flow and then captured by the SPIRALIFT screen basket where they are further washed by a high-impact spray wash system. The washed solids are conveyed and discharged as a cleaned and homogeneous confetti-like material, ideal for disposal.



TASKMASTER® Grinder

The TASKMASTER grinder preconditions the solids prior to screening, enhancing its overall operation. The ground output is more thoroughly washed and is more easily and reliably conveyed. TASKMASTER grinders employ unique *Cutter Cartridge*® technology. With this design, every six cutters and six spacers are combined into a one piece monolithic element for high strength and easy maintenance.



The SPIRALIFT SL with grinder is installed at the newly designed wastewater facility in Arizona.



The SPIRALIFT's rugged, nylon brushes sweep the screen of debris with each rotation. The brushes are fastened in sections to the auger with stainless steel for easy maintenance.

Options

Discharge Bagger | Compaction Zone | Takeaway Conveyors | Heat Tracing
 Explosion-proof Components | Stainless Steel Grinder or Auger Construction
 Differential Level Sensors | Submersible Grinder Motor | 316L Construction
 Special Mounting Frames | Custom Fabricated Stainless Steel Channels

Design and Construction

The SPIRALIFT is provided in a number of models with different grinders, screen diameters, screen perforations or wedge wire to meet specific application requirements. The unit's housing and screen basket are constructed of AISI 304L stainless steel. The auger is provided standard in high strength alloy steel. The SPIRALIFT can be configured to be installed at 35 or 45 degree angles of inclination. The unit is supplied with a special pivoting stand that allows the entire machine to be rotated out of the channel for service. The SPIRALIFT's rugged brushes are provided in multiple segments and are easy to replace with the provided stainless steel hardware. The SPIRALIFT is typically driven by a 2HP motor and a heavy-duty helical gear drive rated for long life. The grinder is driven by a 3Hp - 5HP motor and a shock resistant cycloidal speed reducer. The unit is provided standard with an ultrasonic level sensing system coupled to a PLC based control system. A special stainless steel frame is provided for wider channels for easy mounting and removal.

S270 Control System:



An S270 Automatic Control System monitors and controls system operation. This PLC-driven unit is provided standard in a NEMA 4X FRP enclosure. System functions include sequence timing, grinder and spiral jam sensing and jogging function, level control override and spray-wash solenoid control.

Typical Models

Model No.	Max. Flow Level	Channel Width	Screen Diameter	Grinder Model	Max. Flow MGD (l/s)	Grinder HP (kW)	Screen HP(kW)
SL12 S12*	12" - 60" (305 - 1524 mm)	14" - 24" (356 - 610 mm)	12" (305 mm)	TM8500 -	3.5 (153)	3 - 5 (2.2 - 3.7)	2 (1.5)
SLT12	14" - 60" (356 - 1524 mm)	18" - 40" (457 - 1016 mm)	12" (305 mm)	TM14000	7.8 (342)	3 - 5 (2.2 - 3.7)	2 (1.5)
SLD16 S16*	18" - 60" (457 - 1524 mm)	36" - 60" (914 - 1524 mm)	16" (406 mm)	TM14000D -	13.5 (591)	5 (3.7)	2 (1.5)
S20*	20" - 60" (508 - 1524 mm)	22" - 32" (559 - 813 mm)	20" (508 mm)	-	12.9 (565)	-	2 (1.5)
S24*	24" - 60" (610 - 1524 mm)	26" - 36" (660 - 914 mm)	24" (610 mm)	-	15.7 (688)	-	2 (1.5)
S28*	30" - 60" (762 - 1524 mm)	33" - 42" (813 - 1067 mm)	28" (711 mm)	-	19.8 (867)	-	2 (1.5)
SLX12	14" - 60" (356 - 1524 mm)	22" - 24" (559 - 610 mm)	12" (305 mm)	TM1600	3.5 (153)	7.5 - 15 (5.6 - 11.2)	2 (1.5)
SLX16	18" - 60" (457 - 1524 mm)	22" - 28" (559 - 711 mm)	16" (406 mm)	TM1600	5.6 (245)	7.5 - 15 (5.6 - 11.2)	2 (1.5)

*SPIRALIFT without grinder.
 Contact factory for additional model choices.

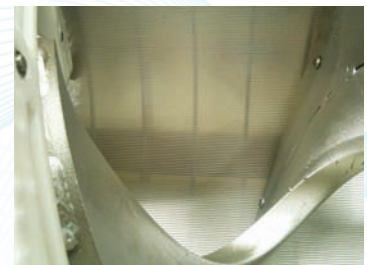
US gallon = 3.79 liters



Optional fully enclosed bagger.



SPIRALIFT with optional stainless steel fabricated channel.



Optional wedge wire screen basket.