

**Franklin
Miller®**

SINCE 1918



Wastewater Grinders & Screens



ENHANCING AND PROTECTING PLANT OPERATIONS THROUGH SOLIDS REDUCTION.

Franklin Miller grinders, shredders and screens play a key role in protecting and enhancing plant operations worldwide. Our equipment and systems are used in pump stations, plant headworks, for raw sewage, sludge and effluent lines, septage receiving, solid waste disposal and more. This equipment is specifically designed to solve difficult flow problems, reduce plant downtime and pump ragging.



For three generations, since 1918, we've been building on a family tradition of quality and customer service. Each unit is built to exacting standards and subjected to a rigorous inspection and testing process.

Feel free to contact us anytime to discuss how one of our units can help you with your plant operation or process problem.

**Franklin
Miller**

www.franklinmiller.com

SUPER SHREDDER®

High Flow Inline Disintegrator

The SUPER SHREDDER® inline disintegrator reduces a variety of tough sewage solids to fine bits while remaining practically invisible to the flow. This unit employs a dependable low speed, high torque mechanism that provides effective operation and long life in sewage and sludge pipeline applications.

The SUPER SHREDDER was specifically designed for high capacity, durability and ease of maintenance. Because of its unique open spherical cutter design, it can handle higher flows than any other inline grinder made. Its cutting elements are constructed of hard-faced stainless steel with a surface hardness in excess of Rc60.



With only two cutting elements, the SUPER SHREDDER is unsurpassed for ease of maintenance.



DIMMINUTOR®

Open Channel Disintegrator

The DIMMINUTOR® offers effective reduction of wastewater solids in straight through channels and wetwells. This powerful unit reduces plastics, wood, rags, disposables and other solids to fine bits easily processed by downstream equipment. The DIMMINUTOR'S heavy precision construction, dependable operation and simplified maintenance have earned it a solid reputation amongst operators and engineers worldwide.

High Capacity, Low Headloss Design

The DIMMINUTOR's unique design employs no seals or bearings below the cutters, near the gritty channel floor. The DIMMINUTOR employs a smooth, continuously rotating design with high torque always available on demand. As its three bi-directional rotary cutters intermesh at close clearance with stationary cutters, solids are finely reduced to a size small enough to pass through a sizing screen. The DIMMINUTOR is designed for unobstructed flow even during reversing cycles.



TASKMASTER® TM8500

A Voracious Twin Shaft Grinder

The **TASKMASTER® TM8500** features powerful twin shaft size reduction capabilities, easy maintenance and exceptional durability. The TASKMASTER reduces wood, rags, paper, sewage, sludge, tampons, cardboard, plastic, fabrics and waste items into fine particles, facilitating further processing or disposal. With the TASKMASTER's unique cutter cartridge technology, individual cutter and spacer disks are replaced with a few one-piece multi-cutter



elements, greatly enhancing unit strength and simplifying maintenance.

The TASKMASTER TM8500 series is available in single (2-shaft) and duplex (4-shaft) configurations. These versatile units are used for sewage treatment, sludge, pumping stations, institutional waste and bulk solids reduction applications.

The **TASKMASTER** can be supplied with a unique flange housing for inline installation. Installed inline, this unit protects pumps from ragging, installs in sludge recirculation lines, and protects filter presses and centrifuges from damage or premature wear. Its unique drop-in housing design facilitates fast and easy removal of the cutter assembly for periodic maintenance without disturbing the pipe system. Additionally, both inline and channel units are supplied with a high-flow side rail design for high capacity.



TASKMASTER® TITAN®

Unique High-Flow Channel Grinder

The **TASKMASTER® TITAN** is a unique high-flow channel grinder that features counter-rotating, intermeshing stacks of cutters. But unlike other grinders, the TITAN's second stack has a much larger diameter than the first. This innovative design results in a dramatic increase in liquid handling capacity as well as a superior ability to process large solids.

The TITAN is available in single (2-shaft) and duplex (4-shaft) versions. Model **TM14000/TM14000D** (3-5HP) single and duplex units handle up to 16 mgd (700 L/S). Models **TM20000/TM20000D** (3-5 HP) single and duplex units handle up to 19 mgd (832 L/S). Models **TM22000/TM22000D** (10HP) single and duplex units handle up to 29 mgd (1270 L/S). These massive units

reduce tough institutional solids such as towels, blankets, shirts, pants, and bed sheets that can choke pumping systems and cause backups.

In short, the TITAN provides excellent performance and high capacity without the need for auxiliary diverters or additional power.



TASKMASTER® TM1600

Heavy-Solids Shredders

The **TASKMASTER® Model TM1600** is a powerful workhorse that can shred heavy solids in both gravity and liquid systems.

The TASKMASTER TM1600 can be installed either horizontally with a stand, hopper or flange adapter, or vertically for channel or pipeline applications. These units have been field tested and proven unmatched for reliability and performance.

Typical applications include gravity and conveyor-fed sewage screenings, in-channel raw sewage, correctional institution effluent, documents, product rejects and returns, garments, filters, packaging materials, plastics, turnings, electronic components and waste materials. A variety of cutter configurations is available to meet varied application requirements.

The TM1600's heavy-duty construction features include: 2-3/4" hardened hex shafting, mechanical seal shaft protection, up to 20 HP electric, hydraulic or submersible motors and direct inline or optional space saving right-angle gear drive. Options include pipe flanges, cleaning combs, stainless construction, wetwell frames and more.



SPIRALIFT® SL/SLX

Grind, Screen, Wash, Transport and De-water



The **SPIRALIFT® SL** features two technologies in one – grinding and screening for a uniquely effective system. This unit fine screens, washes and conveys solids out of a channel. The discharge is a homogenous, ground filtrate which is washed, compacted and conditioned – ideal for landfill disposal. The SPIRALIFT features shaftless screw technology, stainless auger housing and smooth and reliable operation. It's durable segmented

brushes provide for far easier brush maintenance than strip brushes,

The **SPIRALIFT® SLX** is a heavy-duty system specifically built for screening of heavy prison and institutional wastewater effluent. This powerful system effectively handles large, concentrated solids including clothing, sneakers, sheets, blankets, wood and other debris too large for standard-duty systems to handle.



SPIRALIFT® SLT/SLD

Enhanced Screening with the Powerful Titan® Grinder

The **SPIRALIFT® SLT** features a channel-mounted 12 inch (300 mm) diameter screen along with a TASKMASTER® TITAN® (TM14000 series) twin-shaft grinder to pre-condition solids. A stainless steel



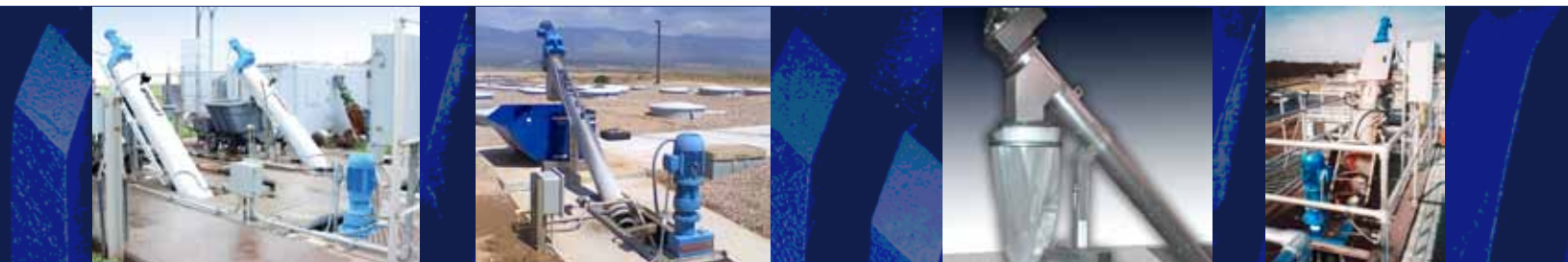
channel divider separates screened liquids from solids-laden flow. The solids are directed to and captured by the SPIRALIFT screen, then discharged at a suitable height, cleaned, compacted and homogeneous.

The **SPIRALIFT® SLD** features a 16" (400 mm) channel screen coupled to a TASKMASTER TITAN DUPLEX (TM14000D series) twin shaft grinder.

The solids-laden flow is discharged from the grinder in the center and screened by a downstream SPIRALIFT screen. Two channel dividers are provided to separate the pre-screened flow from the center solids-laden flow. This design provides optimized capacity.



The TASKMASTER Titan Duplex grinder conditions solids as part of the SPIRALIFT SLD system.



SPIRALIFT® SLV

Efficient Screening in Tight Locations

The **SPIRALIFT® SLV** is a unique fine screen that separates and conveys solids vertically. This unit combines the grinding technology of the Taskmaster® TM8500 with a vertical channel screen to provide fine screening of solids entrained in liquid flows.

Because of its small footprint, the SLV fits in extremely tight locations such as pump stations and wet wells. In fact, the SLV fits where no other screen can be placed. The SLV offers a unique split screen design for easy interior access for maintenance such as brush replacement without the removal of the unit from the wet well.



The screen features a stainless steel housing, carbon steel auger and helical gear drive.



SPIRALIFT® SR

Septage Receiving Stations

The SPIRALIFT® Septage Receiving Station

is designed to receive, screen and separate septage solids. The SPIRALIFT incorporates a grinder, fine screening shaftless screw system, spray wash, control system and more. These units wash and efficiently compact screenings by up to 40%. The processed solids are conveyed to a convenient elevation for discharge into a bin, bag or conveyor.



The SPIRALIFT SR features an oversized stainless steel tank enclosure and screening system designed for abundant capacities to quickly offload septage trucks. The unit is provided with a compaction zone with backwash system that reduces the moisture content of the discharged screenings.

The S270-SRH Hauler

Station is a comprehensive control system that provides an automated interface for septage truck haulers to securely access and operate a SPIRALIFT® SR septage receiving station without the need for plant personnel.



SPIRALIFT® SC

Grinds, Washes and Dewaterers

The **SPIRALIFT® SC** Screenings Conditioner combines grinding, washing and compacting in one capable unit. It can be installed behind a new or existing mechanical bar screen, or with a conveyor



system. This unit can be easily placed in tight plant locations and quickly goes to work enhancing the screenings output. The processed solids are discharged as ground, uniform particles in a compacted plug, ideally conditioned for disposal.

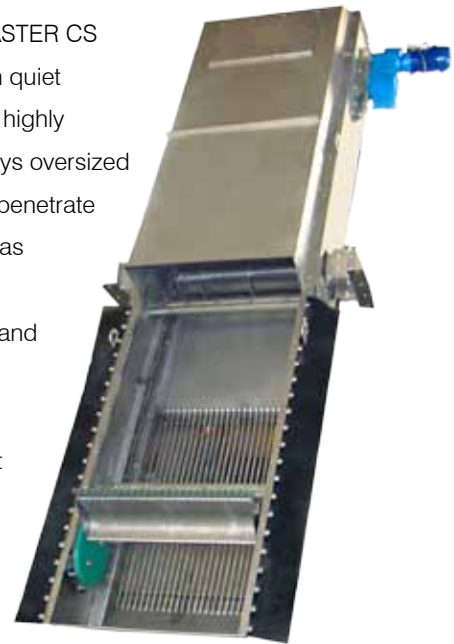
The SPIRALIFT SC utilizes a rugged TASKMASTER® Grinder to reduce solids to a small size, exposing multiple surfaces. The ground solids are intensively washed to remove contaminants and organics. The screenings are then compacted and conveyed by the unit's powerful screw press while organics are returned to the flow. The SPIRALIFT SC is provided with a stainless steel housing and PLC based control system. Available models include SC8520 (5HP+3HP) and SC1620 (10HP+3HP) which are complete with grinders, the SC8500 and SC1600 (less grinders) and other special models. All units are provided with a S270-SC control system.

SCREENMASTER® CS

Wastewater Bar Screen

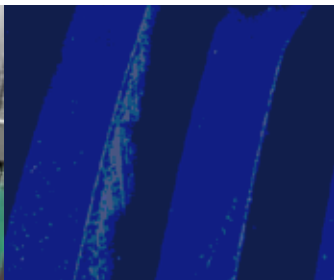
The **SCREENMASTER® CS** provides efficient cleaning of a bar screen and removal of solids from rectangular channel installations. This versatile unit employs a simple, yet effective rotary front clean/front return raking mechanism. It installs at a 75° inclination so it has a very small footprint. The unit is fully enclosed above the water line.

The SCREENMASTER CS provides smooth quiet operation and is highly reliable. It employs oversized rake heads that penetrate the screen slots as they reach the channel bottom and lift accumulated debris to a discharge height of up to 38 ft (11.6m) from the channel bottom. The



screenings drop out the unit's discharge chute and into a SPIRALIFT SC Screenings conditioner/washer or into a bin or auxiliary conveyor.

The SCREENMASTER is fabricated in stainless steel including the unit's oversized drive chains. Unlike other screens, the unit's design employs no bottom bearings or sprockets thereby eliminating a major cause of maintenance problems. This unit is available with 1/4" to 2" bar slots.



SCREENMASTER® SP

Perforated Plate Screen

The **SCREENMASTER® SP** is a precision constructed fine screen which removes a remarkable amount of wastewater screenings from channel installations in municipal and industrial wastewater applications. This unit features specially designed perforated plates that provide efficient fine screening. The SP can be easily installed directly in-channel, even in tight plant locations. The unit's stainless steel perforated bands (panels) screen and capture the debris entrained in the wastewater. The movement of these bands conveys the solids up towards the discharge chute. Once the headloss reaches a preset level, the panels are automatically cleaned by an independently operated rotating brush. The screen may also be controlled by a timer or based on a duty/stand-by cycle. This unit's design ensures high extraction rates with minimum head loss.



SCREENMASTER® ST

Step Style Fine Screen

The **SCREENMASTER® ST** employs fine screening "step-bar" technology. This unit is a uniquely dependable and an effective screening system that features the strongest, most easy to maintain and durable step screen design available.



The ST has a superior linkage system with no chains or sprockets. It has a unique sealed low friction bottom step without plastic spacers. The robust two-piece bar design (lamelas) retains straightness and is easy to maintain.

The solids accumulate as a mat on the screen until a level sensor indicator activates the unit. The motor rotates the bars incrementally, moving the materials up the bar screen steps. When the solids reach the top, they fall into a bin, washer or conveyor.