



**Bulk Storage and
Automated Reclaiming
Solutions**

FLUIDIZED SCREW™

Models FS510, FS1010, FS2010



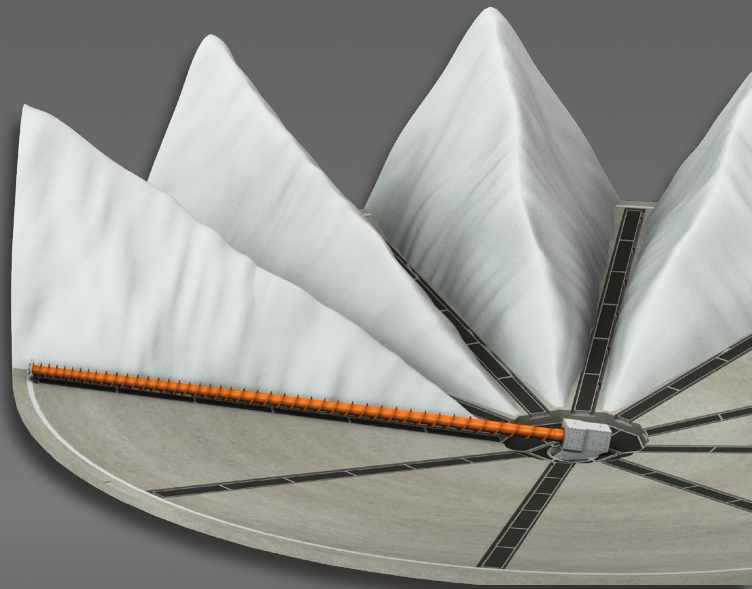
HIGH-VOLUME STORAGE AND RECLAIM OF FLUIDIZABLE MATERIALS

HOW IT WORKS

The Laidig **Fluidized Screw** reclaimer is built with longevity and flexibility in mind. Engineered to handle a wide variety of materials, the **Fluidized Screw** is ideal for fluidizable materials, including cement, fly ash, talc and powders.

The **Fluidized Screw** is designed to eliminate traditional fully-fluidizable floors which are cost prohibitive in large storage diameters. The Laidig system utilizes fluidized radial spokes to clean out a large portion of the storage vessel and a mechanical screw to reclaim the remaining piles of material.

The Laidig **Fluidized Screw** system is engineered to provide a fully-automated, near-total clean out while breaking up hard pack and avoiding dead zones. The **Fluidized Screw** reclaim system integrates the best of two proven technologies: the efficiency of air-gravity conveyors and the ruggedness of our mechanical screw reclaimers.



ABRASION RESISTANCE

Consistent exposure to rugged and abrasive materials can lead to premature wear and the reduction in the life expectancy of critical equipment components.

Laidig has done extensive research and development to provide the very best abrasion resistance options specifically to ensure your equipment will hold up even in the harshest of conditions. These Laidig options include: hardened flight, carburized auger knives and blades, and a total hard-facing of the auger flighting and tube.



AIR GRAVITY CONVEYORS

Air gravity conveyors, which consist of an aerated center hub and radial spokes, reclaim a large percentage of the total stored material. Intelligent control systems sequentially activate air-gravity zones that coincide with the location of the screw reclaimer.

MECHANICAL SCREW RECLAIMER

The mechanical screw reclaimer breaks down and cleans out the remaining hard packed piles of material.



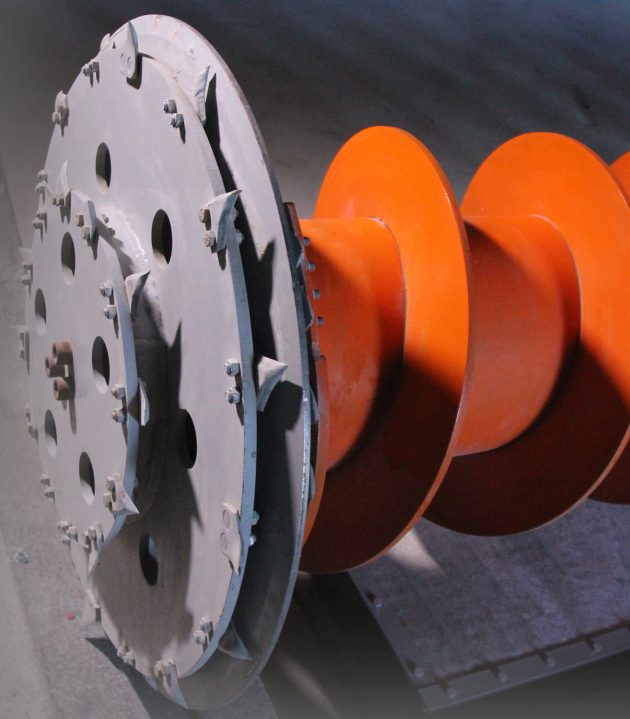
FLUIDIZED SCREW FEATURES

- Engineered to meet the toughest material challenges
- Fully automated & dependable push button operation
- The integration of an efficient air-gravity conveyor with a rugged mechanical screw reclaimer
- The reclaim of cement, fly ash, talc, powders and fluidizable materials with zero personnel entry
- A fully-reversible sweep auger for maximum process flexibility
- Supporting diameters up to 190 feet (58 m)
- Access to Laidig's lifetime technical support



LAIDIG MACHINE INTERFACE

The Laidig **Fluidized Screw** offers intelligent, fully-automated, push-button operation utilizing Laidig's LMI™ (Laidig Machine Interface). The LMI provides the operator with maximum control and flexibility while ensuring the reclaimer is running in a safe and efficient manner. It allows the operation and monitoring of the reclaimer's status in a graphic-rich display. The LMI provides an interface to safely control the **Fluidized Screw** reclaim system, which can be integrated with various types of customer control systems. It can also include remote access capability for monitoring or troubleshooting the system off-site.



FULLY INTEGRATED DESIGN

Laidig **Fluidized Screw** reclaim systems offer a fully integrated solution comprised of a high volume dome storage vessel, a mechanical screw reclaim system, an air gravity conveyor system, and a fully-automated control system. All components are designed to work together seamlessly as a single custom-engineered package.

With dome diameters up to 190 feet (58 m) and air conveyance delivery rates up to 225 cubic feet per minute, the **Fluidized Screw** system is able to store and efficiently reclaim a high volume of fluidizable material in an automated process with zero personnel entry.



*All Laidig LMI's are custom engineered to each reclaim system. UL has tested representative samples and determined they meet the specific, defined requirements based on UL's published and nationally recognized standards for safety.

FULLY AUTOMATED LARGE VOLUME RECLAIM

INTEGRATING THE BEST OF TWO PROVEN TECHNOLOGIES

Laidig's **Fluidized Screw** reclaim systems are designed specifically for heavy-duty applications requiring high-volume storage and reclaim of fluidizable materials.

Laidig provides turnkey installations including the storage dome, the mechanical reclaim system, blowers, air gravity conveyors, and a customized fully-automated control system.

Laidig Fluidized Screw Specifications

Specifications*	Model FS510	Model FS1010	Model FS2010
Storage Diameter	120' (37 m)	160' (49 m)	190' (58 m)
Auger Cutting Diameter	22" (55.9 cm)	26" (66 cm)	36" (91 cm)
Air Conveyance Delivery Rate	225 cfm (6.37 m ³ /min)	225 cfm (6.37 m ³ /min)	225 cfm (6.37 m ³ /min)
Auger Capacity	86 cfm (2.4 m ³ /min)	125 cfm (3.5 m ³ /min)	175 cfm (5 m ³ /min)
Auger Rotation	30 RPM	30 RPM	30 RPM
Discharge Opening	1.76 ft ² (0.16 m ²)	1.76 ft ² (0.16 m ²)	1.76 ft ² (0.16 m ²)
Hydraulic Power Unit	150 HP	200 HP	300 HP
Air-slide Blower	100 HP blower	150 HP blower	200 HP blower

* Data shown conveys generalized specifications of the referenced Laidig reclaimers. Material characteristics and other application-specific parameters can significantly alter reclaim specifications. Please contact a Laidig technical sales representative regarding capabilities for specific applications.

ADDITIONAL OPTIONS:

- Automatic Variable-Speed Drives
- Discharge Conveyor Systems
- Hydraulic Fluid Immersion Heater
- Ultra-Wear AR Design
- Stainless Steel Fabrication
- Hazardous-Environment Design

With Laidig You Get More Than Steel...

- Custom Engineering and Design
- In-House Manufacturing
- Construction Services and Support
- Customer Service

If we design and install your storage and reclaim system, we guarantee it will work.



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