

FLUIDIZED SCREW™

Model FS510 Reclaim System



- *Need storage and reclaim of fluidizable bulk materials?*
- *Want automated reclaim you can depend on?*
- *Tired of dealing with multiple dead zones?*
- *Is hard pack hampering process flow?*
- *Would avoiding manual clean-out be of value?*

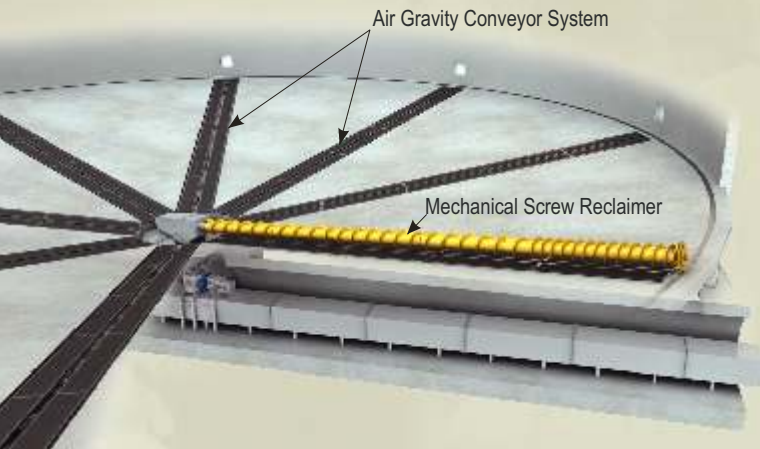


Bulk Storage and Reclaim Systems

RECLAIM HARD PACK WITH TOTAL CONFIDENCE

FS510 Fluidized Screw Reclaim System

- **Integrates the best of two technologies**
 - ♦ Rugged mechanical screw reclaimer
 - ♦ Efficient air-gravity conveyor system
- **Totally-automated finger-tip control**
- **Reclaim hard pack with confidence**



How does the FS510 work?

- **Air-gravity conveyors**, consisting of an aerated center hub and radial spokes, are embedded into the dome's sloped floor.
- The **mechanical screw reclaimer** is located at a "home position" over any one of the radial spokes.
- At start-up, **initial reclamation via air-gravity conveyors** reclaims a large percentage of the total stored material.
- **Secondary reclamation from the mechanical screw reclaimer** breaks down remaining piles and hard pack.
- **Control systems sequentially activate air-gravity conveyor zones** to coincide with the location of the screw reclaimer.
- At shut-down, the **screw reclaimer automatically returns to the nearest "home position"**.



The reclaim screw is parked at a "home position" over any one of the air-gravity conveyor spokes prior to fill.



Initial reclamation via air-gravity conveyors reclaims a large percentage of the stored material, and allows the screw to start under minimal load.

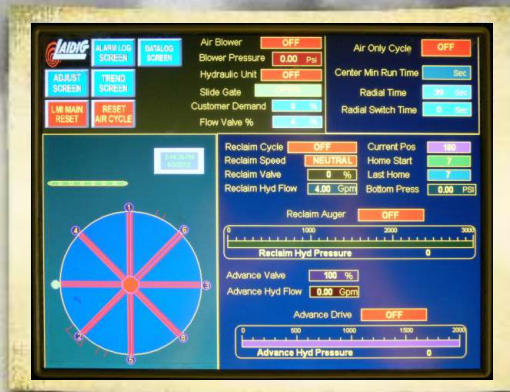


Pie-shaped piles of hard-packed material remain after operation air-gravity conveyors.

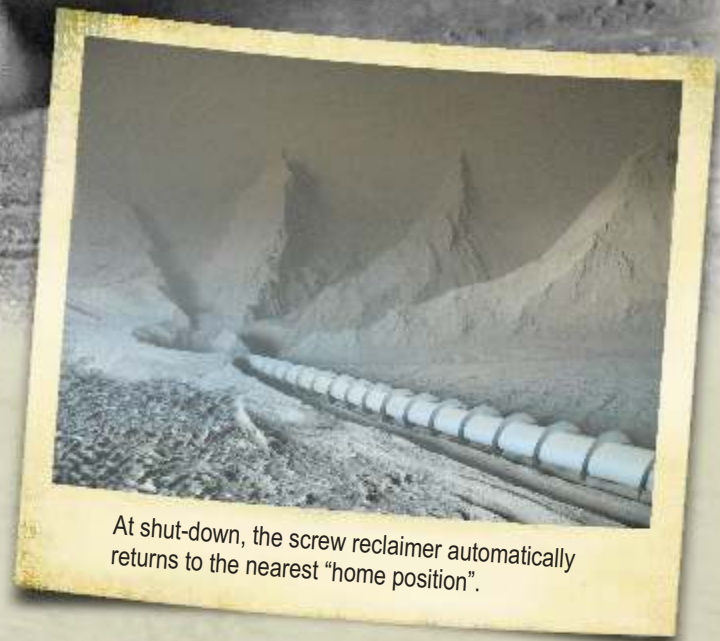
INTEGRATING THE BEST OF TWO TECHNOLOGIES

RECLAIM HARD PACK WITH TOTAL CONFIDENCE

Secondary reclamation from the mechanical screw reclaimer breaks down remaining piles and hard pack.



Laidig's automated control system sequentially activates air-gravity conveyor zones to coincide with the location of the reclaim screw.



At shut-down, the screw reclaimer automatically returns to the nearest "home position".



The fully-aerated center section and discharge chute prevents hard-pack formation if material is stored for an extended time without reclamation.



The rotary control valve varies the reclaim rate by comparing a weigh-scale signal with the desired discharge rate.



PLC-controlled air manifold system in the access tunnel delivers clean air from the blower system to the air-gravity conveyors.

INTEGRATING THE BEST OF TWO TECHNOLOGIES



What does the FS510 include?

Dome Storage Vessel

- Cylindrical base with hemispherical roof
- Service and discharge tunnel
- Sloped floor with recessed center
- Large equipment access door

Mechanical Screw Reclaim System

- Reclaim auger
- Center assembly & drive trains
- Hydraulic power unit

Air Gravity Conveyor System

- Radial conveyor sections
- Aerated center hub
- Manifolds and actuators
- Aerated discharge & transition
- Blower unit & drive motor

Fully-Automated Control System

- Local operating station
- Main control station
- Touchscreen GUI
- Customized software

*General Specifications**

- Dome systems up to 164' (50 m) diameter
- Discharge rate up to ~250 MT/hr, nominal
- ~200 HP blower, typical
- ~150 HP hydraulic power unit, typical

* For systems less than ~100' (30 m) diameter, Laidig recommends the 8300/9300 Cone Bottom Series, the Planetaire, or the Symetrix, depending upon specific application requirements.

WITH LAIDIG YOU GET THE TOTAL PACKAGE:

The Storage Structure

Designed specifically for the dynamic-load requirements of bottom-reclaim systems.

The Reclaim System

Custom engineered for high delivery rates with a wide range of material applications.

The Laidig Guarantee

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

WE DON'T JUST SELL EQUIPMENT, WE PROVIDE SOLUTIONS.



Laidig Systems, Inc.

14535 Dragoon Trail
Mishawaka, IN 46544 USA

Phone: 574-256-0204
Fax: 574-256-5575
sales@laidig.com
www.laidig.com

Copyright © 2010 rev b