

Bulk Storage and Automated Reclaiming Solutions



THE SOLUTION TO SILO BRIDGING PROBLEMS



SAFETY AND SIMPLICITY

The **Cone-Bottom** reclaim systems have provided solutions to hundreds of material-handling challenges worldwide. This is not only attributed to Laidig's unwavering commitment to the success of every application, but also because the **Cone-Bottom** reclaimer is designed with dependability and serviceability in mind.

The hydraulically powered **Cone-Bottom** reclaim system has been designed with minimal moving mechanical parts to keep maintenance low. Motors and drive components are located outside of the material for easy inspection and service.

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.

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RUGGED DRIVE TRAIN

The **Cone-Bottom** reclaim auger is driven by an efficient direct drive hydraulic motor maximizing durability and reliability. Its smooth, low-vibration operation is efficient and effective at reclaiming material in the silo. The reclaim auger can be configured with replaceable cups or knives for aggressive reclaiming in fibrous or sticky materials.

CONE-BOTTOM FEATURES

- Engineered to meet the toughest material challenges
- Encourages first-in-first-out material distribution
- 100% cross-sectional activation of silo
- Easily-accessible drive components located outside of the material
- Fully-automated, dependable, push-button operation
- Zero-entry storage and reclamation of hard-to-handle materials
- Diameters to 60' (18 m) with Laidig's Cone-Bottom systems
- Access to Laidig's lifetime technical support

RELIABLE MATERIAL DELIVERY

Since 1961, Laidig's reclaim systems have provided reliable, fully-customized solutions for bulk material storage and handling. Their rugged designs and commitment to engineering and manufacturing excellence have made Laidig the worldwide leader in bulk storage and material handling solutions.

Laidig's **Cone-Bottom** series reclaimers offer the ultimate material-handling performance and dependability. **Cone-Bottom** series reclaimers are the absolute solution to the silobridging problems associated with hard-to-handle materials. The Laidig **Cone-Bottom** system helps create mass flow enabling near-total silo clean out while maintaining a first-infirst-out (FIFO) material distribution.

MASS FLOW

Laidig's **Cone-Bottom** reclaim system utilizes a rotating auger that undercuts the material in the bottom of the silo. This helps create mass flow in the silo and also promotes first-in-first-out material handling. The **Cone-Bottom** enables process or batch control processes to be implemented effectively. Material delivery is consistent and controlled due to the auger eliminating material buildup that can cause restricted flow or bridging.



*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.



LAIDIG MACHINE INTERFACE

The Laidig **Cone-Bottom** 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 **Cone-Bottom** 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.

AGGRESSIVE STORAGE AND RECLAIM SOLUTIONS PROVIDING TOTAL AUTOMATION TO HIGH-VOLUME STORAGE



Laidig's **Cone-Bottom** reclaim systems are designed specifically for reclamation of materials with poor-flow characteristics or other properties which make the material difficult to handle.

Laidig provides turnkey installations including silos, reclaimers, conveyors and other material handling equipment as needed. Because of the dynamic, asymmetric forces exerted on the silos when material is extracted by the reclaim augers, the silo and reclaimer package are designed as an integrated system. This ensures structural integrity and successful long-term operation.

Laidig Cone-Bottom Specifications

Specifications*	Model 3445 Electric	4300 Series	5300 Series	8300 Series	9300 Series	9600 Series
Storage Diameter	5' - 18' (1.5 - 5 m)	4'-24' (1-7 m)	4'-24' (1-7 m)	8'-35' (2-11 m)	8'- 45' (2 <i>-</i> 14 m)	20'- 60' (6-18 m)
Cone Angle	45°	30° or 45°	30° or 45°	30° or 45°	30° or 45°	30° or 45°
Auger Cutting Diameter	6" (15.2 cm)	8" (20.3 cm)	8" (20.3 cm)	13" (33 cm)	17" (43.2 cm)	17" (43.2 cm)
Auger Capacity	5.5 cfm (0.2 m³/min)	20.9 cfm (0.6 m³/min)	20.9 cfm (0.6 m³/min)	49.6 cfm (1.4 m³/min)	87.6 cfm (2.5 m³/min)	87.6 cfm (2.5 m³/min)
Expected Delivery Rate	80 cfm (2.27 m³/min)	55 cfm (1.5 m³/min)	200 cfm (5.6 m³/min)	200 cfm (5.6 m³/min)	400 cfm (11.3 m³/min)	400 cfm (11.3 m³/min)
Auger Rotation	100 RPM	100 RPM	100 RPM	70 RPM	60 RPM	60 RPM
Discharge Opening	0.50 ft² (0.04 m²)	0.40 ft² (0.03 m²)	1.50 ft² (0.13 m²)	1.80 ft² (0.17 m²)	3.70 ft² (0.34 m²)	3.70 ft ² (0.34 m ²)
Reclaim Drive HP	5 HP					-
Reclaim Torque	1x (Base)	0.8x	0.8x	6x	10.8x	38.5x
Hydraulic Power Unit	-	7.5 HP	10 HP	25 HP	50 HP	100 HP
Depth From Floor (min)	1.67' (0.50 m)	2.79' (0.85 m)	3.70' (1.12 m)	3.90' (1.18 m)	5.17' (1.57 m)	12.5' (3.8 m)

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.

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.

ADDITIONAL OPTIONS:

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



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