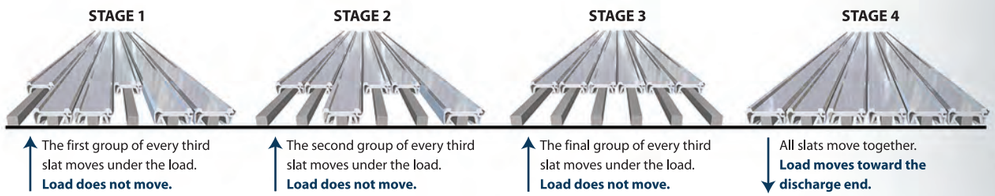
HOW A *WALKING FLOOR*® UNLOADER WORKS



KEITH® *WALKING FLOOR*® Systems move nearly any bulk material or palletized cargo.

Agriculture:
Fresh Produce; Compost; Seed; Silage; Cotton (modules and bales); Fertilizer; Peat; Grain; Manure; Livestock Feed; Corn (fresh and seed)

Refuse and Recyclables:
Loose, Baled, Compacted and Bagged Refuse; Commingled Recyclables; Demolition Debris; Aluminum; Municipal Solid Waste; Plastic; Biosolids; Scrap Metal (ferrous and non ferrous); Tires (shredded, chipped and whole); Cardboard; Paper (baled and loose); Soil Remediation

Wood and Paper Products:
Pulp; Chips; Fiberboard; Paper Rolls; Sander Flour; Finger Joint Blocks; Broke Paper; Sawdust; Finished Paper; Mulch; Wood Waste

Energy/Fuel:
Hog Fuel; Biomass; Bagasse; Chipped Tires; Coal; Pellets; Pucks; Refuse Derived Fuel

Other Industries:
Aggregate; Asphalt; Soil; Palletized Cargo; Ice; Document Destruction

The KEITH® Promise:
"The continuous pursuit of excellence in KEITH products and customer service."

Mark Foster
President

Keith Foster
Founder

 8.5.15

Engineered Solutions

KEITH

www.keithwalkingfloor.com

KEITH Mfg. Co.
WORLD HEADQUARTERS
Madras, OR USA
(541) 475-3802
sales@keithwalkingfloor.com

Canada
Brantford, ON
(519) 756-9178
canadasales@keithwalkingfloor.com

México
Guadalajara, Jal.
52-55-9112-8000
kmc_mexico@keithwalkingfloor.com

Australia
Waverley Gardens, VIC
61-3-9562-2190
ausales@keithwalkingfloor.com

Europe
Barneveld, The Netherlands
31-342-422007
eurosales@keithwalkingfloor.com

Engineered Solutions

KEITH
MANUFACTURING CO

www.keithwalkingfloor.com

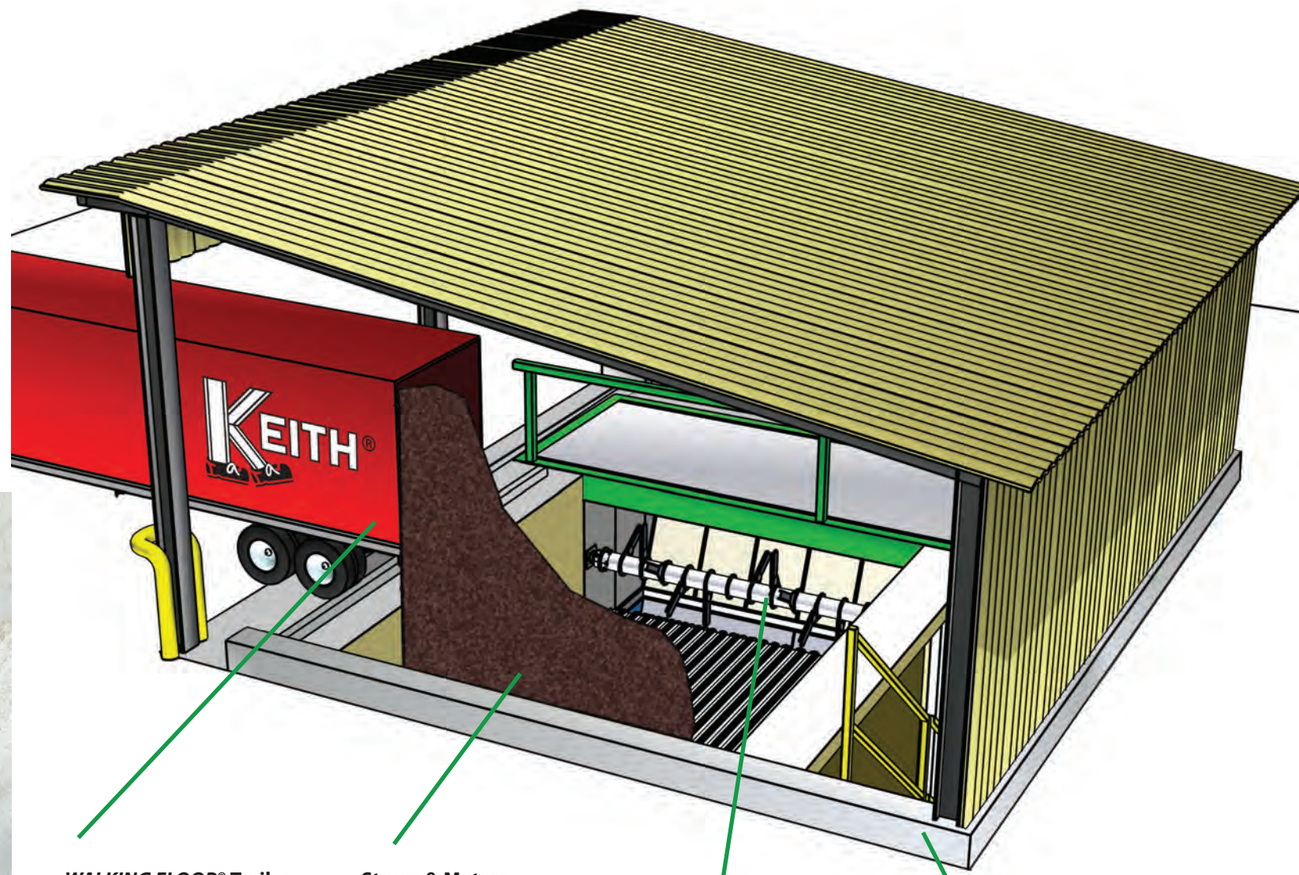
Receive It - Store It- Meter It

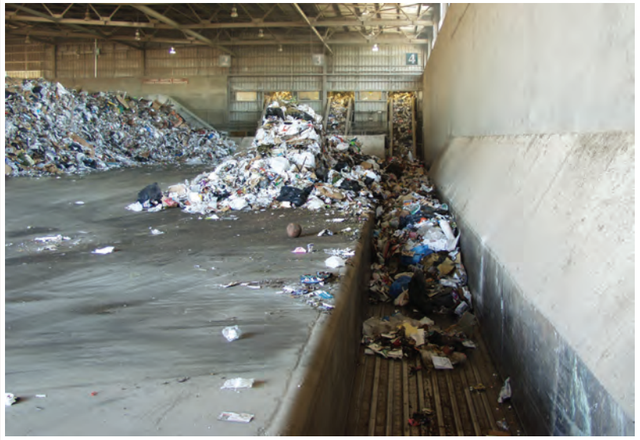
Handling Solutions for Difficult Materials™

Pit Mounted Bin

KEITH® *WALKING FLOOR*® engineered solutions are suitable for storing, receiving and metering a variety of materials. Systems are custom engineered to your specifications, with virtually unlimited dimensions and weight restrictions. Systems can be flush mounted, installed above ground, placed in a pit or secured to an existing pad. Available in a variety of configurations, *WALKING FLOOR*® systems can be constructed to include multiple bins, walls and roofing.

Pit-mounted bins are commonly used in the wood products and waste industries and are used for trailer receiving or loader charging. The floor easily withstands the impact of top-loading. Bins can be configured as single or multiple floors and store material until it is needed.





***WALKING FLOOR*® Trailer**
A trailer outfitted with a *WALKING FLOOR*® unloader can streamline the process by automatically offloading material directly onto the system.

Stores & Meters
Material can be stored until it is needed. A variety of floor slat profiles are available to accommodate the impact and abrasion caused by the material.

Options
The *WALKING FLOOR*® system easily integrates with accessories such as spike rolls, augers, compactors and belt conveyors.

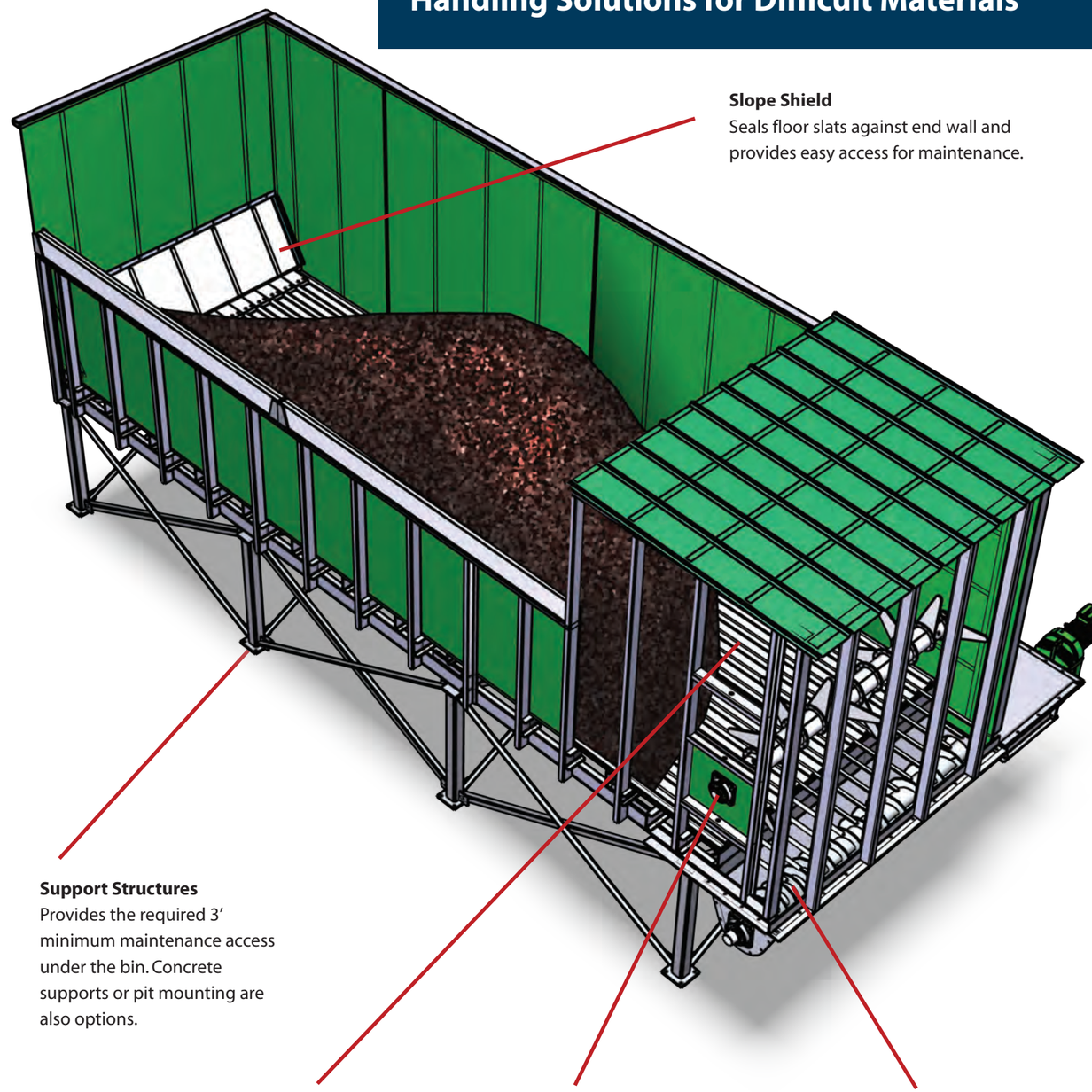
Bin Configuration
Bins can feature single, double or multiple floors for flexible storage options.

Loader Fed Bin

KEITH provides a variety of engineered solutions for handling difficult materials. Systems are built to suit and are suitable for storing, receiving and metering a variety of materials. Systems are custom engineered to your specifications, with virtually unlimited dimensions and weight restrictions. The unique design handles nearly any solid material, including biomass, solid waste, agricultural products and whole tires.

Loader fed bins are used in a variety of industries, including wood products, agriculture, compost and energy production. KEITH produces both large and small loader fed bins, depending upon the needs of the facility. Installing a loader fed bin can increase efficiency, allowing material to be stored until needed. This frees equipment operators to focus on other duties, rather than feeding the system. An even material flow can further simplify the material handling process.

Handling Solutions for Difficult Materials™



Slope Shield
Seals floor slats against end wall and provides easy access for maintenance.

Support Structures
Provides the required 3' minimum maintenance access under the bin. Concrete supports or pit mounting are also options.

Floor Slats
Available in a wide variety of widths and materials to suit specific applications.

Spike Roll
Easily integrate features such as spike rolls, to handle difficult materials.

Discharge Auger
Conveys lumpy, sluggish material from the bin at a constant or adjustable rate.

DrivOn™ Bin

KEITH® *WALKING FLOOR*® systems are designed in a variety of configurations to best fit your facility's requirements. All provide a true FIFO (First-In, First-Out) material rotation. Materials can be unloaded directly onto the bin's floor even while it is in operation. Systems are available with a variable volume/discharge control for maximum throughput and ability to handle changing material conditions.

A DrivOn™ Bin can be designed with an open or enclosed top to meet site requirements. Store and meter bulk material while the trailer is unloading its payload on the KEITH® *WALKING FLOOR*® conveying system. DrivOn™ systems are used to unload and convey bulk fuel, wood products, cotton and other agricultural commodities.

Handling Solutions for Difficult Materials™

***WALKING FLOOR*® Trailer**
Semi-trailers outfitted with *WALKING FLOOR*® systems maximize volume and weight capacity, work under low headroom conditions, discharge partial loads, and are not prone to tipping on unstable ground or in windy conditions.

Design Features
Store, and meter bulk material while trailer is unloading.

Access Door
Placed to customer specifications.

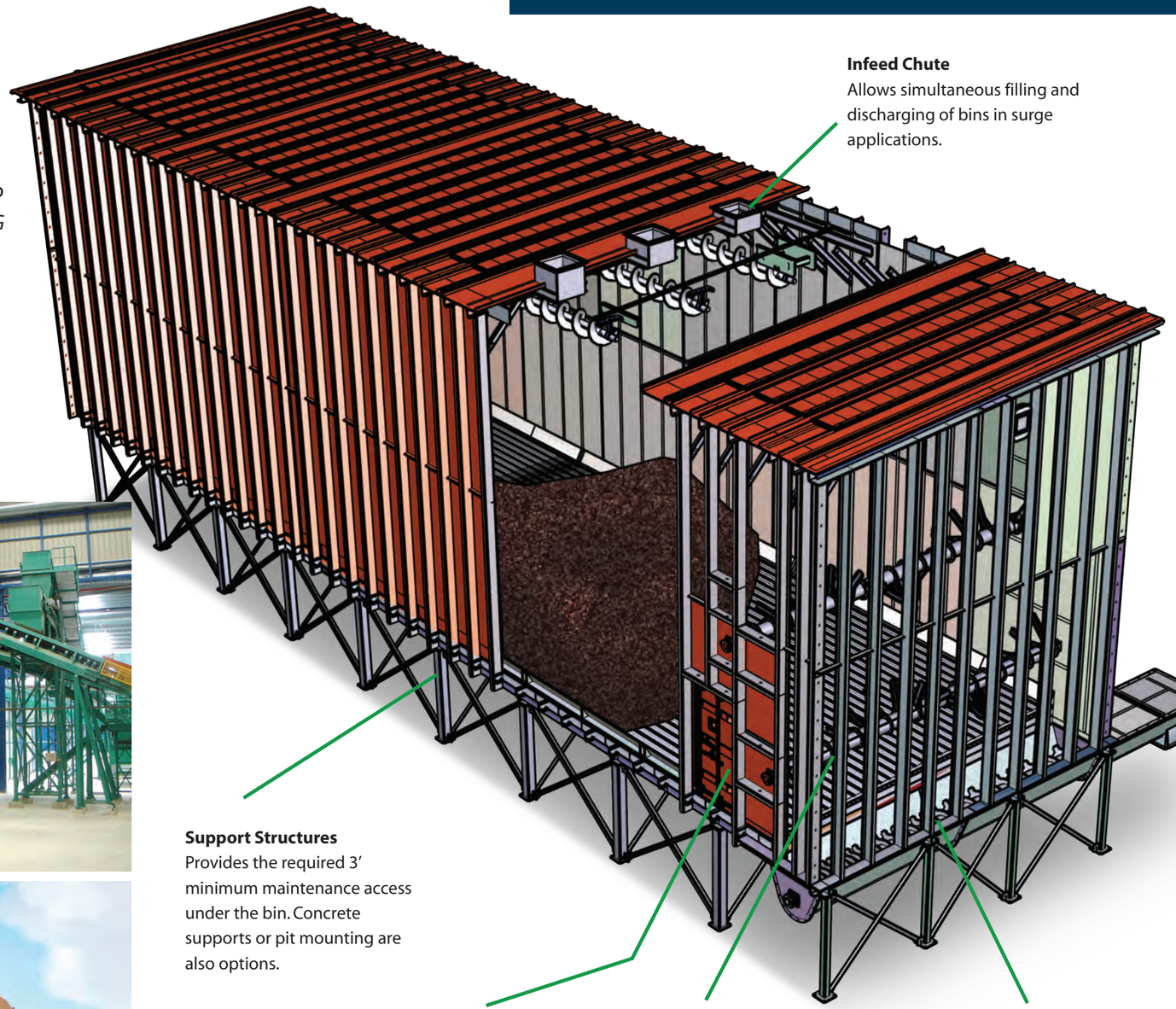
Spike Roll
Ensures an efficient and reliable flow of material.

Discharge Auger
Because the KEITH® *WALKING FLOOR*® system consistently delivers material to the discharge area, there are fewer jams, resulting in less maintenance.

Large Storage Bin or Small Buffer Bin

WALKING FLOOR® system is a horizontal loading and unloading technology. While in motion, the floor slats remain horizontal, reciprocating sequentially and then in unison to convey the material. A drive system, powered by a hydraulic power unit, activates the floor slats.

Large Storage Bins can be engineered for storage capacity of more than 1,400 tons. The length, width and height is designed to suit your needs. As with all KEITH® *WALKING FLOOR*® systems, large storage and small buffer bins are pre-fabricated for onsite assembly.

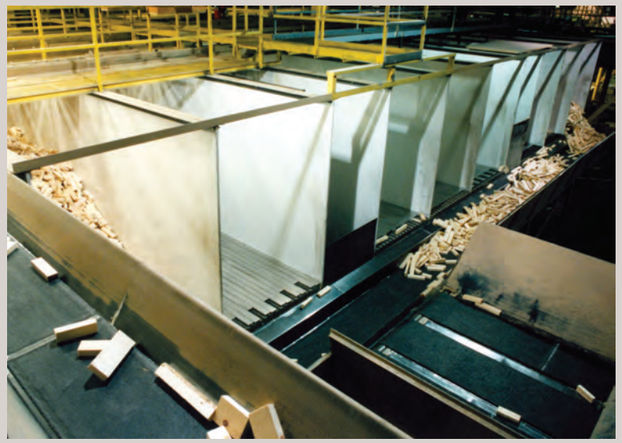


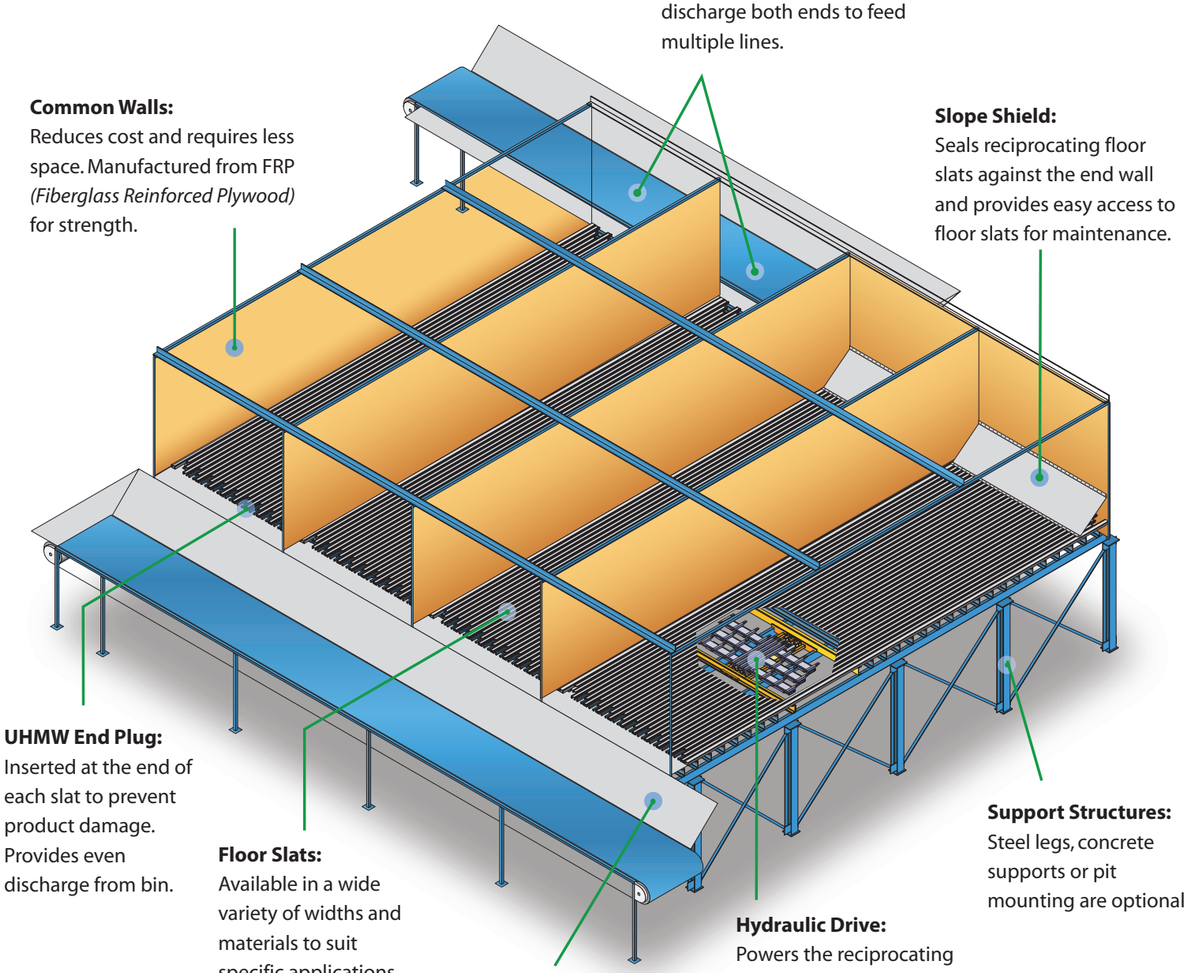
Multi-Bin

Handling Solutions for Difficult Materials™

WALKING FLOOR® systems have multiple benefits over other conveying systems. They are more efficient than a chain or stoker floor. They easily integrate with existing equipment, making retrofitting a facility a simple process. Maintenance is also lower than with a conventional belt, chain or screw conveyor.

Located side by side, *WALKING FLOOR*® bins provide versatile storage space for recycling, wood products, compost and other materials. In addition to saving space and labor, bins automatically feed materials for further processing. Using a *WALKING FLOOR*® system eliminates overloading of the takeaway conveyor because the speed can be controlled.





Feed Multiple Lines:
Bins can optionally discharge both ends to feed multiple lines.

Common Walls:
Reduces cost and requires less space. Manufactured from FRP *(Fiberglass Reinforced Plywood)* for strength.

Slope Shield:
Seals reciprocating floor slats against the end wall and provides easy access to floor slats for maintenance.

UHMW End Plug:
Inserted at the end of each slat to prevent product damage. Provides even discharge from bin.

Floor Slats:
Available in a wide variety of widths and materials to suit specific applications.

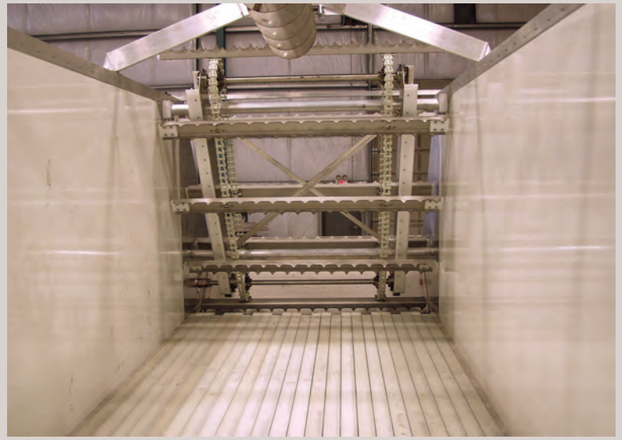
Discharge Chute:
Mounted at a 45° angle, improves downstream handling.

Hydraulic Drive:
Powers the reciprocating floor slats. Accessible from under the floor. No need to empty the bin prior to maintenance.

Support Structures:
Steel legs, concrete supports or pit mounting are optional.

Specialty Bins

KEITH makes a number of specialty bins for specific applications, including ice storage and metering bins. KEITH® ice systems improve plant efficiency and automate ice delivery. They provide a true first in, first out product rotation without leaving residual ice, ensuring that clean up is an easy process.



Systems require no daily maintenance and unlike conventional ice storage containers, there are no drag chains or horizontal rakes to break down or become buried in the ice. Ice systems are used in the packaged ice, seafood, poultry, produce and concrete industries.

Handling Solutions for Difficult Materials™

Units are custom engineered and can be constructed to hold an almost unlimited tonnage.

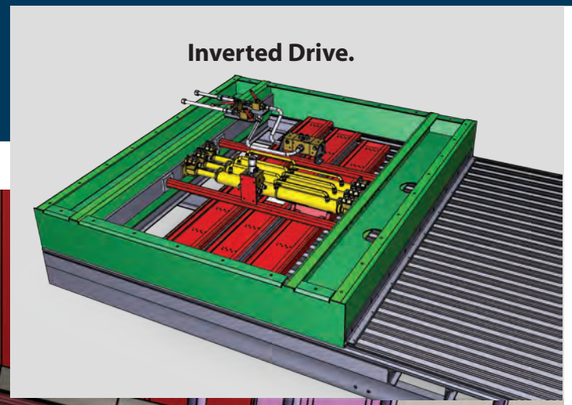
Bin Walls
Gel-coated, fiberglass re-enforced plywood walls prevent ice from freezing to sides of bin.

Long-lasting UHMW
sprockets, in conjunction with a food-grade polymer chain, drive the comb.

Comb
Constructed of FDA approved materials, the comb is mounted at a 25° angle for maximum efficiency.

Floor Slats
Floor slats are coated with food-grade polyethylene, eliminating ice buildup.

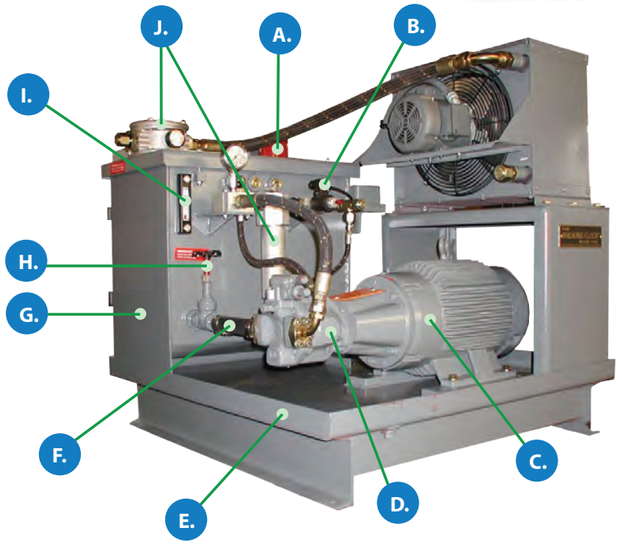
Components

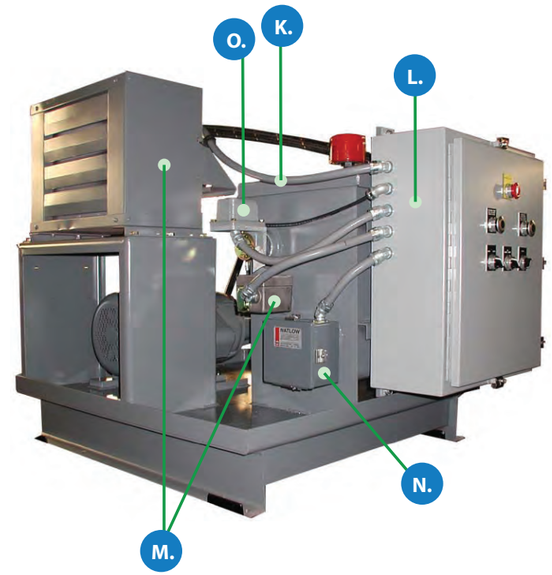


Drive Unit Clearance
A minimum 3′ clearance is required under the bin for maintenance access under the bin. This can also be achieved by pit mounting the bin or by installing an inverted drive unit.

Hydraulic Power Unit

Optional remote mounted control enclosure configured to suit your system.

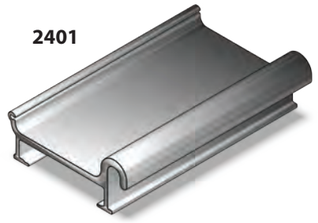




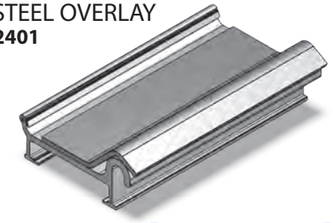
A: Reservoir breather filter.
B: Proportional valve provides infinitely variable floor speed control. Remotely adjustable by electrical signal.
C: Cast iron, industrial duty TEFC (Totally Enclosed Fan Cooled) motor.
D: Variable volume, pressure compensating, piston pump load sensing allows the system to run at minimum horsepower and temperature.
E: Oil containment pan collects small spills to minimize housekeeping.
F: Flooded pump inlet reduces opportunity for cavitation or running pump dry.
G: Reservoir with internal epoxy coating and cleanout lid for full access.
H: Isolation valve for pump maintenance.
I: Sight and temperature gauge.
J: 3-Micron high pressure and return filters with by-pass indicator.
K: Liquidtight conduit for NEMA 4 wash down construction.
L: NEMA 4 electrical enclosure - all electrical components are terminated on a common block.
M: Temperature switch has two set points, one to turn on the cooler and one to shut down the unit in case of extreme high temperatures.
N: Oil heater and cooler keeps oil at proper operating temperature.
O: Oil level switch can shut down the unit to help prevent large spills or running the pump dry.

Floor Slats

2401



STEEL OVERLAY
2401



2190

1/2" V-Floor

Ice Slat