**TYPICAL APPLICATIONS**

- Rendering
  - Poultry Processing
  - Meat Processing
  - Fish Processing
  - Feathers
  - Whole Carcasses
  - Animal Waste
  - Fish/Animal Bones

- Pulp & Paper, Gypsum Board, Particle Board
  - Lime Mud
  - Wood Chips
  - Pulp
  - Fiber Sludge
  - Hogged Bark
  - Screenings
  - Shavings

- Agriculture
  - Fertilizer
  - Corn Gluton
  - Grain
  - Powder
  - Sugar Beets/Cane Processing
  - Peat
  - Pellets
  - Salt
  - Flour
  - Chopped Hay
  - Meal

- Hospital Waste Processing, Recycle Plants
  - Shredded Cans
  - Bottles
  - Heavy Reject
  - Pulper Reject
  - Paper
  - Medical Disposables
  - Screenings

- Wine & Beverage Industries
  - Whole Berry
  - Stems
  - Pumice
  - Fruit Peels

- Waste Water • Solid Waste Treatment
  - Sludge
  - Grill
  - Screenings
  - Solids Removal

- Heavy Industrial
  - Ash
  - Coal
  - Bauxite
  - Recycle Batteries
  - Metal Chip Handling
  - Carbon Black
  - Bentonite
  - Limestone
  - Shredded Tires
  - Caustic Soda
  - Insulation

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**SUCCESS STORIES**

In any industry, unscheduled downtime can cost you money. Conveyor downtime can impact your production quotas and shipments of your finished products, which ultimately can affect your profits. At Martin, we understand how important it is to keep your equipment operating. Below are some examples of how Martin was able to help.

**Compost**

**Application:** 50 TPH of compost conveyed to Drier.

**Problem:** Existing drag conveyor had two strands of drop forge chain. Chain would routinely break under load, shut down line, and require total clean out of 85' long drag.

**Solution:** Martin’s Shaftless Conveyor provided the ideal choice for conveying wet and stringy compost. No internal pipe, no hangers, and no build up on trough bottom resulted in a huge performance improvement and cost savings over the earlier system.

**Documented Savings:** Customer’s estimated savings was $1.2 million/year.

**Lime**

**Application:** Burned lime being conveyed via Vibrating Conveyor.

**Problem:** Existing conveyor was noisy, difficult & expensive to maintain. Product spillage meant expensive housekeeping. A large replacement inventory was required, and vibrations were felt throughout facility.

**Solution:** Martin’s Shaftless Conveyor provided low maintenance costs, total enclosure and quiet operation with only two moving parts, as well as the ability to handle oversized material.

**Documented Savings:** Customer’s estimated savings $125,000/year.
**Shaftless Screw Conveyors — The Problem Solver**

Martin Shaftless Screw Conveyors are the ideal solution for hard-to-transport materials ranging from irregularly shaped dry solids such as scrap wood and metals, to semi-liquid and sticky materials including pulp, compost, food-processing refuse, hospital waste, and wastewater products.

Shaftless Conveyors’ simple, pipeless design employs fewer parts than conventional shafted-screw conveyors, reducing lifetime maintenance costs. It enables higher trough loading and lower RPMs, maximizing the volume of materials conveyed.

Shaftless Screw eliminates jamming and buildup typical in shafted-screw conveyors for greater uptime, higher efficiency, and lower maintenance. It eliminates hanger bearings and end bearings to reduce maintenance and increase efficiency — enabling direct transfer to another conveyor.

Shaftless Screw Conveyors and components are manufactured and stocked at our branches strategically located near major industrial markets across North America. This ensures rapid shipping on new installations and next-day delivery on stock replacement parts.

Several test units, as well as video footage of actual applications, are available for demonstration of the unique capabilities of the shaftless screw. Discover the benefits Martin conveyors can bring to your business — call us today to arrange an on-site demo using your product.

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### Configurations / Options

| Type of Steel          | • Carbon Steel  
|                       | • High Brinell Carbon Steel 
|                       | • Stainless Steel 
| Capacity              | Up to 17,000 CFH 
| Diameter              | 6” to 30” (and larger) 
| Pitches               | Full, 2/3, 1/2 
| Trough                | CEMA Standards 

#### Options

- Liners  
  - UHMW  
  - Xylethon  
  - Tivar  
  - AR  
- Rider Bars  
- Inspection and Overflow Hatches  
- Various Drive Configurations Available  
- Housings: CEMA Standard U-Trough or Split Tubular Housing

#### Configurations

- Single or Inner/Outer Flight Design  
- Twin Screw  
- Multiple Live Bottom Feeders  
- Inclined Screw Conveyors  
- Grit Washers  
- Vertical

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### Feature | Function | Benefit
--- | --- | ---
No Center Pipe Required | Eliminate buildup on pipe | Able to convey large irregularly shaped and sticky product
Continuous Flight | Hanger bearings not required | Eliminate costly hanger bearing maintenance
Higher Trough Loading | Can handle more product at lower RPMs | Longer wear life
Can use Blind Endplate on Tail End | No tail bearings or seals to maintain | Reduces maintenance and replacement costs
No End Bearings Needed | Direct transfer to another conveyor, incline, vertical or horizontal | Can be designed to fit within space limitations or plant layout
Side Inlet Feeding | No vertical transition necessary | Lower installation cost — Reduces headroom
3/4" - 1" Thick Flighting | Long lasting due to wear resistance | Increases uptime
Cold Formed Flight | High Brinell | Longer life
Wide Variety of Liners | Offer proper liner for specific application | Reduced wear resulting in lower maintenance costs
Simple Design | Fewer operating parts | Lower overall operating costs
Compact Drive System | Doesn’t require belts | Easy to maintain
Can be Completely Enclosed | Prevent material leakage — Reduces dust | Eliminates environmental or product contamination
Manufactured in North America | Quality Built — Local Stock | Fast delivery

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* Conveyors shown without cover for illustration purposes only. Please follow manufacturing safety guidelines when operating conveyors.

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**Shaftless Screw Live Bottom**

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**Shaftless Screw Live Bottom**

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**50% Trough Loading***

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<th>Nom. Dia.</th>
<th>A Dia.</th>
<th>B Inside</th>
<th>C Pitch</th>
<th>CFH @ 1 RPM</th>
<th>Max RPM</th>
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* Based on horizontal application only.