Shaftless Screw Conveyors

SHAFTLESS SCREW CONVEYORS — PAGE

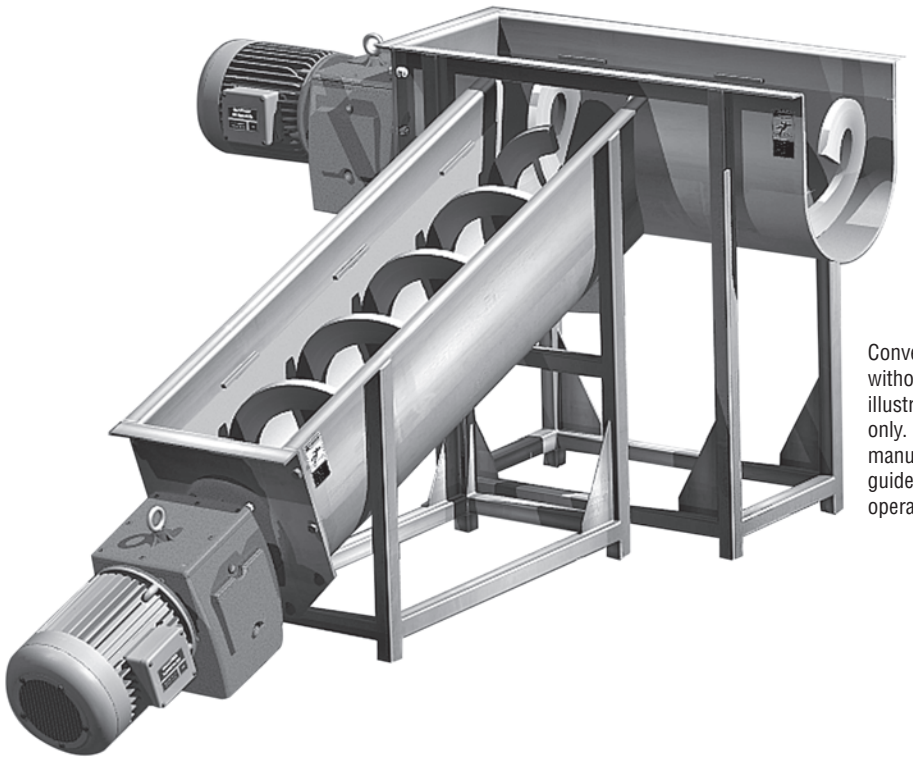
Martin Shaftless Screw Conveyors – The Problem Solver

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.

Martin 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. Martin's 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.

Martin 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.



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

Shaftless Screw Conveyors

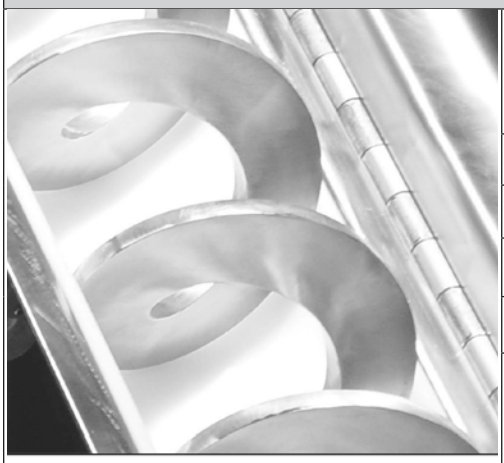
Typical Applications

- **Rendering**
  - **Poultry Processing**
    - Chicken Feathers
  - **Meat Processing**
    - Whole Carcasses
  - **Fish Processing**
    - Animal Waste
    - Fish/Animal Bones
- **Pulp & Paper, Gypsum Board, Particle Board**
  - Lime Mud
  - Pulp
  - Wood Chips
  - Fiber Sludge
  - Hogged Bark
  - Screenings
  - Shavings
- **Agriculture**
  - Fertilizer
  - Grain
  - Meal
  - Corn Gluten
  - Powder
  - Peat
  - Sugar Beets/Sugar Cane
  - Salt
  - Pellets
  - Chopped Hay
  - Flour
- **Hospital Waste Processing, Recycle Plants**
  - Shredded Cans
  - Heavy Reject
  - Bottles
  - Pulper Reject
  - Paper
  - Screenings
  - Medical Disposables
- **Wine & Beverage Industries**
  - Whole Berry
  - Stems
  - Pumice
  - Fruit Peels
- **Waste Water**
  - Solid Waste Treatment
  - Screenings
  - Sludge
  - Solids Removal
  - Grit
- **Chemical & Heavy Industrial**
  - Ash
  - Coal
  - Bauxite
  - Recycle Batteries
  - Metal Chip Handling
  - Iron Ore
  - Carbon Black
  - Bentonite
  - Limestone
  - Shredded Tires
  - Caustic Soda
  - Insulation

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

Size and Capacity

CONFIGURATIONS / OPTIONS



Shaftless Screw Live Bottom

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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50% Trough Loading*					
Nom. Dia.	**A Dia.**	**B Inside**	**C Pitch**	**CFH @ 1 RPM**	**Max RPM**
6	6	7	6	2.5	25
9	9	10	9	9.1	25
10	10	11	10	12.7	25
12	12	13	12	21.6	25
14	14	15	14	34.7	25
16	16	17	16	51.9	25
18	18	19	18	75.1	25
20	20	21	20	104	25
24	24	25	24	182	25
30	30	31	30	359	25

* Based on horizontal application only.