

Triple/S Dynamics



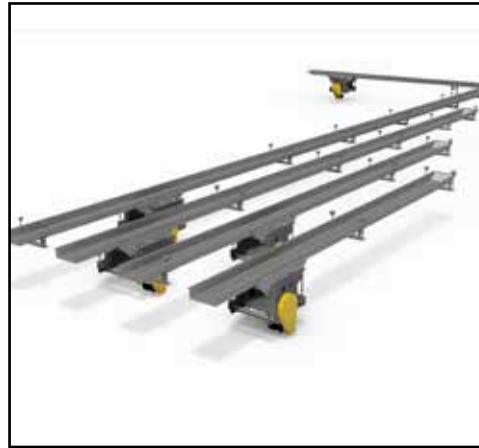
Slipstick® Sanitary Horizontal Motion Conveyor



Basics

Innovation distinguishes between a leader and a follower.

– *Steve Jobs*



The Slipstick horizontal motion conveyor is a true self-balancing forced-vibration system free of vertical pitching forces and rocking couples, and requires no springs for running. A Slipstick conveyor moves anything it can hold up. That is because it is a non-resonant forced vibrating system that doesn't use load-sensitive spring force magnification to make the pan vibrate. And it doesn't have to lift material to make it move. Relative movement between the Slipstick pan and the material is pure sliding. Differential, not absolute, friction supplies the motive power. That is why the travel rate is not dependent on surface roughness, or even area in contact. This unique feature of the Slipstick conveyor permits lighter, more economic construction. With fewer working parts, and no springs at all, it is the closest approach to a zero-maintenance sanitary vibrating conveyor on the market.



Flexibility of Design

Built in lengths from 4 ft. to more than 200 ft., the Slipstick offers a variable rate of product delivery depending upon the application, and is adjustable to suit most any requirement. Base mounted on the floor or suspended overhead, horizontal motion conveyors provide the level of versatility required for difficult installation applications. Conveyor drives may be positioned at either end of the conveyor, or mounted above or below. In addition, these conveyors can be operated at variable speeds, and their conveying direction is reversible.



More than just a Conveyor

The Slipstick Accumulator is a clear choice for in-line storage of many products. The one-piece seamless conveyor pan eliminates cracks, crevices and moving parts in the product stream. No carry-over from seasonings, coatings or powder residue to add to normal plant housekeeping tasks. This feature offers quick and thorough clean out for enhanced sanitation and a greatly reduced risk of any cross contamination between product runs.



Wide variety of Options

A wide variety of gate options is available for the Slipstick conveyor. While standard pivot, plug or proportioning gates are available, there are now tool-less options. Both the Eco-Slide and the Easy Clean Slide Gate offers food processors fast, thorough cleaning of all critical gate areas. Sanitation is improved with no fasteners in the food stream, as is performance and reliability of the gate.

Design Facts



- Structural design governed only by strength required. No excess steel for stabilizing.
- Insensitive to load variations. Can convey loads many times its weight. Drive forces constant regardless of load. Will not stall under load.
- Travel rate can be controlled directly by varying RPM.
- Direction can be reversible.
- No vertical component. Motion is pure sliding in a horizontal plane. Easy on delicate thin-walled castings, pellets, crystals or potato chips. Quiet material motion.
- Self-balancing without extra weight due to integrally mounted inertia drive applying straight-line resultant force horizontally through CG of cross section.
- Can be floor supported or suspended from an overhead structure.
- No seismic deadloading or dynamic counter-balance required.
- Motion is generated by gear-coupled rotating unbalances. No eccentrics. No power springs.
- Nothing to tune; amplitude is independent of RPM in an operating range of 40-70 Hz.



- Less maintenance. Nothing to adjust. No critical rubber parts. Replacement parts are bearings, seals and timing gears.
- Doesn't overstroke at normal operating speeds.
- Runs indefinitely without special attention.
- Discourages build-up of materials on the surface – typically scours the pan clean so there's less time required between production cycles for cleaning.
- Exterior surfaces of the conveyor can be easily accessed for wipe down cleaning – cleaning under the conveyor is easier because there are no support frames or springs.
- Mechanical simplicity over screws, belt or drag conveyors.
- Safer conveying with no chains, screws, sprockets, rollers, idlers, or other moving parts located outside of the sealed and guarded drive unit.
- Minimal conveyor cross section fits neatly into installations where there is limited space.

Applications

Excellent firms don't believe in excellence – only in constant improvement and constant change.

– Tom Peters



The versatility of the Slipstick Conveyor has given way to solving many different processing applications including scalping oversize, length separations, heating, cooling, drying, de-shingling, singulating, aligning, de-watering, washing, metal detection, magnetic separations, distributing through gates, dust containment, in-line accumulation/storage, surge feeding, impact loading, metered flow from hopper, sorting and more. The number of food products that currently move on Slipstick conveyors is long, here is a sampling.



- Almonds
- Bacon
- Beans
- Candies
- Carrots
- Cereal
- Cheese Snacks
- Chocolate Chips
- Cinnamon
- Cocoa Beans
- Cocktail Sausages
- Coffee
- Cookies/Crackers
- Corn Dogs/Wieners
- Croutons
- Grapes
- Marshmallows
- Milk Products (dry infant formula)
- Onion Rings
- Pasta
- Peanuts
- Pet Food/Treats
- Popcorn
- Potato Chips/Corn Chips/Pretzels
- Raisins
- Trail mix

Options



- Materials of Construction – Corrosion resistance, wear resistance (AR plate) and other types of high carbon or alloy steel including 304, 316, 2205; UHMW

- Low profile pans – and narrow high profile pans

- Dual direction



- Impact liners – and slope sheets at impact zone

- Sealed environment – covers and flexible connectors at inlet and outlet; providing near dust-free conveying

- Distribution options



- Gates – Slide, pivot, plug or tool-less – remove from the side of the conveyor or swing down for easy cleaning

- Heating/Cooling – Air or water for indirect heat exchange applications; air injection and water mist are also available for direct application



- Supports and suspension rods – additional supports to attach to structure above or below
- Product dams/flow inhibitors – retains material in the pan for a quickshot surge or inventory of material as conditions warrant
- Multi-lane – product segregation or conveying multiple products in one conveyor
- Textured pans – high-adhesion product moves easier; allows for slight inclined conveying
- Non-metallic sections – for use with metal detectors, typically UHMW
- Non-ferrous sections – typically stainless steel for use around magnets
- Grizzly Sections – or scalping section to remove oversize from a smaller product; not a true screening conveyor
- Metering – ability to hold product in-line and then meter out
- Dewatering

Relationship

Profit in business comes from repeat customers, customers that boast about your project or service, and that bring friends with them.

– W. Edwards Deming



The key to success for our company has long been the ability to turn customers' needs into solutions. Whether you need to convey it, screen it or separate it, we can help you meet your objectives. Our primary goal is to offer the best processing equipment, engineered and manufactured to be rugged, reliable, and safe.

Family



Industrial Slipstick

Some of the benefits of the Slipstick in industrial applications include the conveyors ability to handle massive impact loads and carrying capacities, conveys bulk materials of many type and sizes, can be choke fed and can have widths and depths to match surge requirements – with lengths over 200’.



Texas Shaker Vibrating Screens

The Texas Shaker is designed for precision screening and sizing of dry granular materials in aperture ranges from approximately 1-1/2” to 300 microns. Its long stroke, slow-speed horizontal reciprocating motion promotes rapid stratification and constantly changing velocities yield the highest throughput of undersize per cycle. Available in arrangements of 1-4 cutpoints in one machine.



Density Separators and Stoners

The Sutton line of Density Separators and Stoners use mechanical vibration and air fluidization to separate materials based on product density. Some applications include cleaning grains, nuts and legumes, material reclaim from scrap waste, seed and oil seed processing, cleaning of leafy spices and peppercorns and reclamation of copper wire from chopped scrap wire.

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