

Triple/S Dynamics



Texas Shaker® Vibrating Screen



Basics

Innovation distinguishes between a leader and a follower.

– *Steve Jobs*

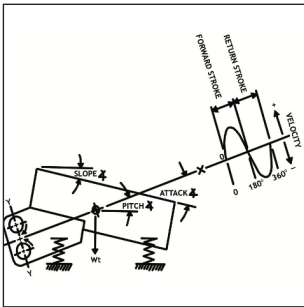


A straight-line motion rectangular screen, the TEXAS SHAKER® is designed for precision screening and sizing of dry granular materials in aperture ranges from approximately 1 ½” to 300 microns. Its long stroke, slow-speed horizontal reciprocating motion promotes rapid stratification, and constantly changing velocities yield the highest throughput of undersize per cycle. It is available in arrangements for 1-5 cutpoints in one machine. The Texas Shaker differentiates itself from other types of screening machines with unmatched capacity, maximum screening efficiency, outstanding reliability and superior vibration isolation.



Reliability/Flexibility/Durability

The Texas Shaker is built to last and custom engineered for your applications. Many customers replace their original units, some lasting more than 30 years.



Vibration Isolation

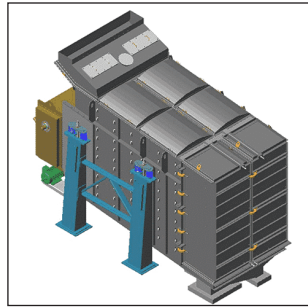
Adapted from the time-tested open rocker bearing and tension rod suspension used in heavy-duty SLIPSTICK® Conveyors, with the addition of coil spring isolators the PENDULINK system achieves significant vibration isolation in TEXAS SHAKER® Screening Machines. Base-mounted with the PENDULINK suspension system, the TEXAS SHAKER in all sizes now runs as smoothly as it always has with cable suspension.



Screening Efficiency

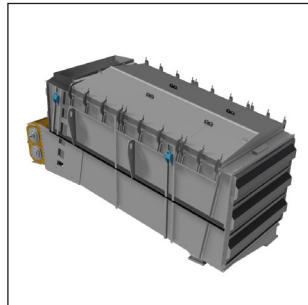
A lot has been written about what method of screening is the most efficient. One thing we do know, straight-line motion promotes better cleaning efficiency. Even some gyratory motion manufacturers transfer into a straight-line motion at the end of the screen deck as they understand the straight-line motion is best for efficient screening.

Design Facts



- The straight-line “shake” is generated by a pair of unbalanced, gear-coupled and counter-rotating shafts. This rotation generates the straight-line inertia force which, applied to the screen box structure, causes it to move in reaction.

- Our standard is six degrees slope and zero degrees pitch angle. Other settings are available for special applications.



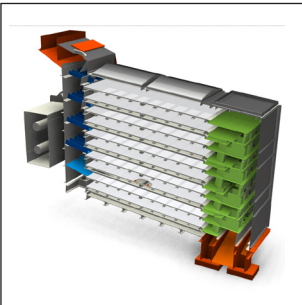
- The constant change in velocity and direction of the screening surface creates a shuffling effect in the material bed that promotes stratification and screening.

- Velocity change intensifies the action of the cleaning balls, whose multiple and random impacts against the underside of the screen helps prevent blinding.

- Cleaning balls apply local agitation to assist in stratification and the screening efficiency by helping undersize particles to migrate down through the screen cloth.



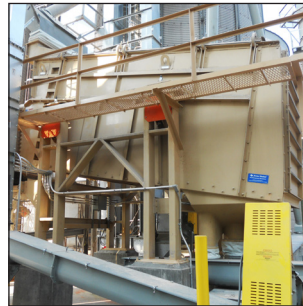
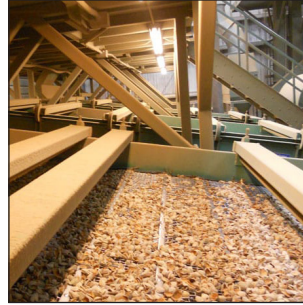
- The positive conveying action (40 fpm on 6-degree slope) moves the oversize bed at constant velocity preventing uneven buildup on the screen.
- Rotors and gears are mounted in a modular housing that spans the full width of the screen box.
- Rotors are machined from solid, hardened alloy steel forgings and carried in spherical roller bearings designed for vibrating duty.
- Bearings are mounted in individually removable steel housings, for ease in removal and replacement.
- The external mounting of the drive provides easy access for inspection or maintenance; it also allows the complete module to be quickly removed to a clean shop environment when maintenance is required, or to be replaced with a spare.
- Flexible boots at the infeed and discharges provide a closed up system for dust control purposes.



Applications

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

– Tom Peters

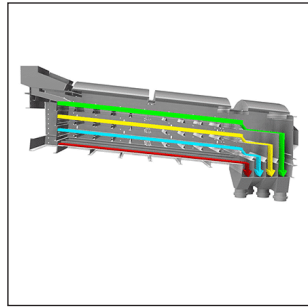


The Texas Shaker® vibrating screen is one of the most versatile screening machines on the market. Our extensive laboratory testing and engineering expertise has created a wide range of options and sizes that can efficiently screen hundreds of dry products. We've listed some of the success stories on the next page.

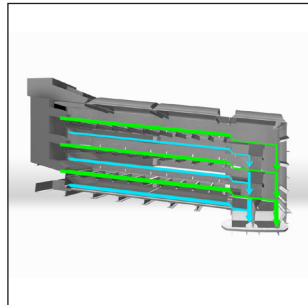


- Almonds and nuts
- Ammonium Sulfate
- Animal Feed
- Barley
- Beans
- Biomass Pellets
- Catofin Catalyst
- Corn
- Crushed Limestone
- Feed Pellets
- Flax Seed
- Magnesium
- Meals
- Peanuts
- Pet Foods
- Potash
- Potassium Sulfate
- Pumice
- Rice
- Salt
- Sand
- Soybeans
- Sunflower Seeds
- Wheat
- Wood Chips
- Wood Pellets

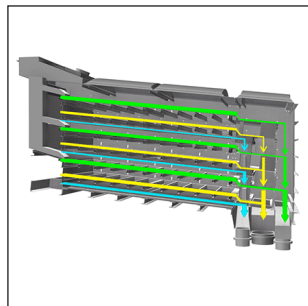
Options



- Aspiration can be incorporated in a Texas Shaker to improve the overall cleaning efficiency, for example, to further lower FM (foreign material) levels in grain cleaning application. A full-width cross flow aspirator can be added ahead of the feed box or underneath the discharge spout.



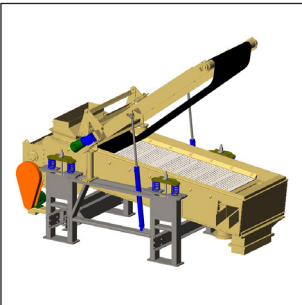
- The Texas Shaker can be base mounted or cable suspended. Base mounted, the Pendulink high-efficiency suspension reduces vibration transmissibility significantly.



- Texas Shaker models are offered in sizes ranging from a 3' x 6' single-deck to 8'x 10' ten-deck, providing up to 800 square feet of screening area in a single machine.
- The Texas Shaker can be set up in series, parallel or series-parallel configuration with up to five cutpoints and up to ten decks in parallel.
- The Texas Shaker can be supplied as standard model (top loader) with access to the screens through the top of the screen box, layer by layer, and as Quick-Change (QC) model for individual access to the screen decks by opening the discharge module.



- The QC Texas Shaker offers three options to get easy and fast access to the screens for inspection and screen change. The discharge module can be swung to the sides, hinged on one side (for smaller and mid-size machines), lifted up (one piece for all models) or detached and set aside (as one piece for all models).



- All sliding surfaces, such as the feed box or discharge module, can be equipped with abrasion resistant liners (abrasion resistant steel plates, UHMW liners or ceramic tiles) for the processing of very abrasive materials.

- Options for cleaning balls are gum rubber or polyurethane balls for ambient temperature and silicone balls or wire form balls for elevated temperatures.

- Can be manufactured in 304 or 316 stainless steel at the product contact points, such as the complete screen box from feed box to discharges.



- Optional ventilation ports on top of the screen box allow the connection to the plant dust control system for mitigation of explosion risks and reduction of dust emissions.

- Optional spreader box design for internal spreading, eliminating the need for pre-spreading earlier in the process.

Relationship

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

– W. Edwards Deming



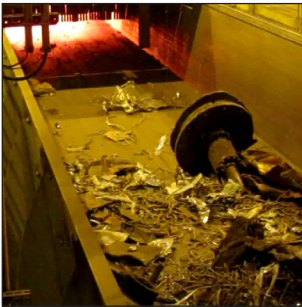
The key to success for our company has long been the ability to turn customers' needs into solutions. Whether you need to convey it, screen it or separate it, we can help you meet your objectives. Our primary goal is to offer the best processing equipment, engineered and manufactured to be rugged, reliable,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

Family



Sanitary Slipstick

The Slipstick Sanitary Conveyor, the first horizontal motion conveyor, is the food industry standard, recognized for its gentle, non-impact conveying motion and enviable record of low maintenance, high reliability and performance.



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’.



Density Separation Equipment

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.

Triple/S Dynamics

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