

Sweco Advantages and Features

ADVANTAGES

Sweco designs are highly versatile and can be customized to your requirements. With over 50 years of design experience in separators, we have developed hundreds of options and components that can be used to optimize a solution for your process. Sweco's extensive database of engineering designs allows us to "plug-and-play" with these components to develop your solution.

Widest Range of Materials Screened.

Only Sweco separators can handle such a broad range of materials... wet or dry, fine or coarse, heavy or light. Particles as fine as 400 mesh can be screened at high production rates.

Single or Multiple Separations.

As many as four screen decks can be incorporated in one Sweco Separator, providing simultaneous separation into five fractions.

Less Blinding.

Vibro-Energy action holds most screen blinding to an acceptable minimum. However, certain materials have inherent blinding characteristics. For unusual situations, Sweco has developed accessories to eliminate blinding.

Greater Capacity.

In comparative tests, Sweco Separators have shown greater capacity per square foot of screening area (from 1 to 90 sq. ft.) than other types of screening devices.

Highest Efficiency.

Our nearly infinite (patented) no-tools force wheel adjustment coupled with our computer motion analyzer system assures more efficient processing than any other screening device. Sweco's portable motion analyzer is made available to all customers through our technical audit aftermarket service program.

Longer Screen Life.

Each screen cloth is held in uniform tension by drawing it taut on tension rings. The drum-tight screening surface vibrates freely without whipping against rigid supports, greatly reducing screen wear and increasing screen life.

Minimal Transmitted Vibration.

No special flooring or foundation is generally required. The unit may be placed (and easily moved) wherever it is needed. Many users mount their Sweco units on casters, on top of bins, on open grids, on wood, on upper floors, or on light structures not designed for rectangular vibratory screening equipment.

Less Space Required.

For equivalent capacity, Sweco Avalanche Separators require less working floor space than other screening systems. Compact Sweco Low Profile units normally fit right into existing production lines.

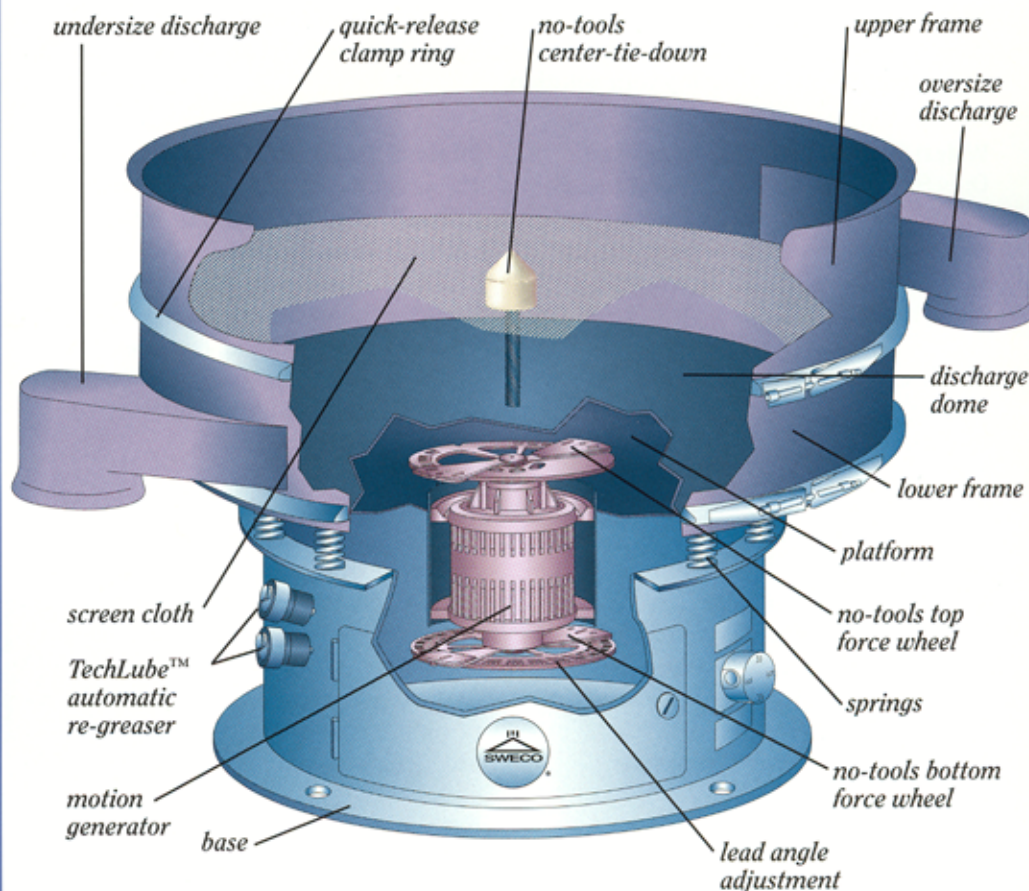
Economy—Long Life, Less Power, Low Maintenance.

Simplicity of design with few moving parts assures long life with little maintenance. Because of efficient design, Sweco Separators require less horsepower than other units of similar capacity. Remarkably long screen life and the ease with which screens may be changed result in further economies.



FEATURES

Vibro-Energy® Separators Interior View



How Sweco® Vibro-Energy® Separators Work

Basically, the Sweco Separator is a screening device that vibrates about its center of mass. Vibration is accomplished by eccentric weights on the upper and lower ends of the motion-generator shaft. Rotation of the top weight creates vibration in the horizontal plane, which causes material to move across the screen cloth to the periphery. The lower weight acts to tilt the machine, causing vibration in the vertical and tangential planes. Speed and spiral pattern of material travel over the screen cloth can be set by the operator for maximum through-put and screening efficiency of any screenable product... wet or dry... heavy or light... coarse or fine... hot or cold.



0° Lead – Dry material is thrown straight and gives insufficient separation



15° Lead – Dry material begins to spiral



35° Lead – Gives dry material maximum efficient screening pattern

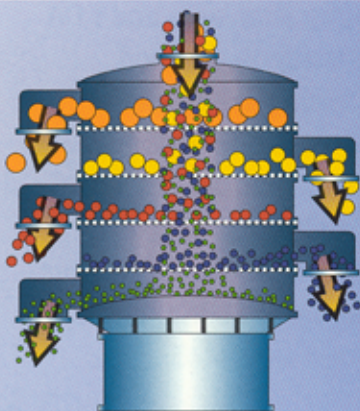


90° Lead – Keeps oversize material from being discharged and assists in receiving maximum throughput of minus material which tends to "ball"

Separation Processes

Sizing

Segregation of a variety of solid particles into separate groups containing comparable sizes. Up to 5 separations simultaneously.

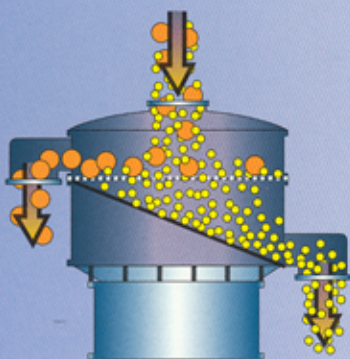


Dry Products

Sugar - spices - starch - soybeans - sawdust - salt - instant potatoes - animal feed - sand - abrasives - grit/shot-glass beads - detergents - rubber - polystyrene beads - paint - iron oxide - lead - tungsten carbide - ceramic and metallic powders - milling products - powdered pharmaceuticals - chemical and food products

Scalping

Removal of a small quantity of undesirable oversize particles in a high-throughput process.

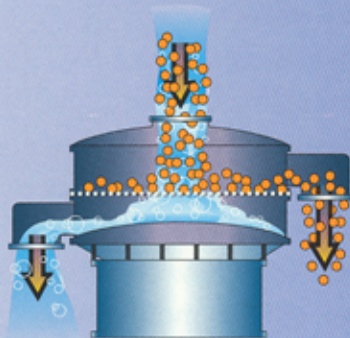


Dry Material

Powdered milk - cereals and grains - sugar - instant coffee granules - chocolate powder - soybean flour - broth concentrate - potato granules - borax - abrasives - carbon black - metal powders - sand - paint - casein - plaster - detergents - fertilizer - tobacco - bone, blood and feather meal

Gravity Filtering / Product Recovery

Filtering oversize solids from all types of slurries, or dewatering solid/liquid mixtures. Reclaiming usable solids or clarifying liquids, either of which has further economic value.

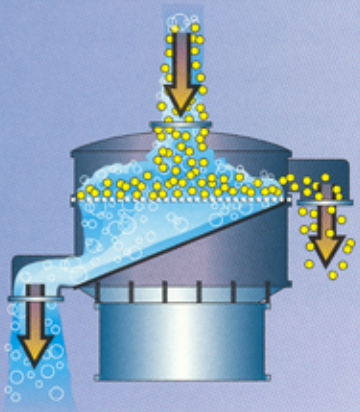


Solid/Liquid Mixtures

Fruit juices - fish - soybean oil - brewer's yeast - sugar beets - other food products - latex - paint - catalyst - pulp and paper - carpets - animal blood - tallow - ceramic - kaolin - metallurgy - pharmaceuticals - ice cream

Wastewater Clean-Up and Water Pollution Control

Efficient recovery of usable solids, and water clean-up and re-use.



Effluent Streams

Potato peelings and waste - fruits - other food products - latex and other chemical products - manure - sewage - fruit - vegetable and pickle canneries - meat - poultry and seafood processors - brewery waste - laundry waste - pulp and paper effluent