



Vibrating Screens

Screening technology

Solutions for your success

VSO/VSB Linear-Motion Vibrating Screens

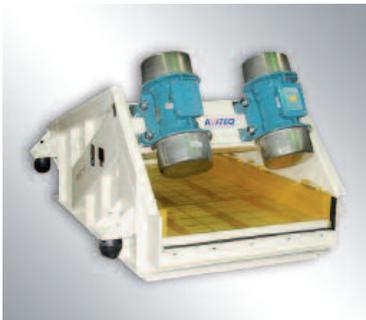


Linear-Motion Vibrating Screens

VSO/VSB Linear-Motion Vibrating Screens classify bulk material into several grain size ranges and differ from other screening systems through their use of a linear vibrating motion, among other characteristics. Their design allows these screens to be installed horizontally, so that very little installation height is required. A maximum of 3 screen decks

suffices for most applications. Almost all types of screen inserts find use. Unbalanced exciters, unbalanced motors, unbalanced shafts and magnetic vibrators are the most commonly employed drives. The variety of screen designs available makes it possible to find the right one for almost every application.

VSW/VSR Dewatering Screens



Dewatering Screens

VSW/VSR Dewatering Screens are used to separate liquid-solid mixtures by means of vibration.

Removal of liquid at the beginning aids subsequent steps in the course of processing of bulk material. For instance, the energy consumption associated with drying processes can be reduced significantly if the residual moisture in the material to be dried can be lowered.

Depending on the grain size and grain shape (round or broken), residual moistures levers as low as 12% can be achieved. Selection of the correct screen inserts affects both the service life and the dewatering results. The experience gained over many years plays an important role here. AVITEQ has been active in the field since the end of the 1930s and uses different drive systems to achieve successful results.

Circular-motion vibrating screens



Circular-motion vibrating screens with excentric shaft

Circular-motion vibrating screens, frequently called circular motion screens, are used to classify medium – and coarse-grained bulk material (5.0 – 300 mm), to provide protective screening and for dewatering. They represent a versatile solution for a variety of screening tasks. Circular-motion vibrating screens are screening machines that employ indirect excitation of the screen mesh. The entire screen frame is driven by unbalanced masses that create a circular vibrating motion. As a consequence, only minimal acceleration of the material being screened is possible. For this reason, circular-motion vibrating screens are best-suited for separating material in the medium and coarse grain size range. The undirected vibrations of

the circular-motion system are associated with a steep launch angle, so that additional cleaning of the surface of the screen is required to achieve a suitable transport speed. Investigations have shown that an angle of 15° to 30° is the optimal inclination for a circular-motion vibrating screen. Classification can be performed on a wet or dry basis. The speed and amplitude of vibration are adjusted to achieve the best screening action for the application. The adjustable unbalanced weights are used to set the throughput.

Drive and support elements

An electric motor drives the unbalanced shaft of the circular-motion screen via a universal joint.

Grizzly Screens



Grizzly Screens

AVITEQ **Grizzly Screens** are rugged, durable heavy-duty units that are adaptable to the product and which can be used as discharge units with an integrated screening function below a silo, hopper or bunker, or as feed units for conveyor belts or crushers.

Depending on the task, these units are designed with a sturdy, wear plate-lined inlet area followed by two or three bar grate levels. Each bar grate insert is made from rods that taper in the direction of material flow, creating a widening gap that prevents material jams. The areas of use include the raw materials industry as well as stone, earth, and coal industries with product

sizes up to 1,000 mm in length, and even the chemical and food industries. Any application where preliminary screening and separation of fine and coarse material is needed.

Areas of use

- Screening of coarse-grain material
- Separation of coarse-grain material prior to classifying
- Separation of fines from crushers
- Protection of conveyor belts through deposition of fine-grain material

Drives types for bar grate screens

- Magnetic vibrators
- Unbalanced motors
- Unbalanced exciters

RS Twist Screens



RS Twist Screens

Center-drive twist screens are used primarily for dry screening at a low throughput (t/h). The product is classified, dedusted, controlled and protected against contamination.

In special cases, such screens are used to separate liquids and solids (paper industry).

Externally driven twist screens find use especially for protective screening and dedusting. The screen itself is generally made from stainless steel and driven by unbalanced motors at 25 Hz or 16 2/3 Hz. To keep the screen cloth open (stainless steel or synthetic mesh), tapping ball devices and, in special cases, ultrasonic excitation are used.

VSO Vibrating Screens



Vibrating Screens with exciter

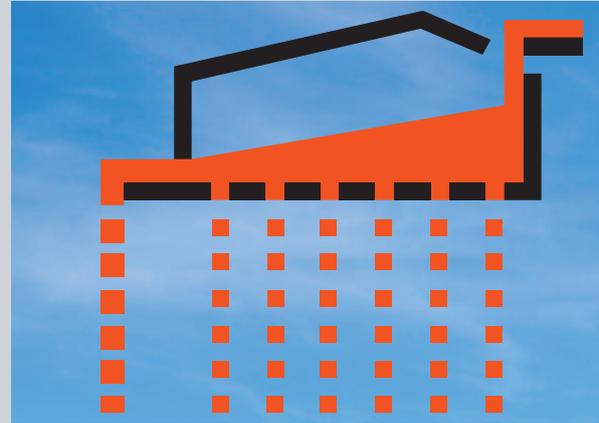
VSO Vibrating Screens classify bulk material into several grain size ranges, remove small amounts of oversize and fines or separate impurities and foreign matters from the material being screened. Traverse are available for material flow rates ranging from a few kg/h to 600 t/h and higher.

The underside of vibrating screens is open. This allows the fines to drop through. The drive – two unbalanced motors or exciters, or a magnetic vibrator – is attached to a traverse in the upper part of the rigid screen frame. It excites linear vibrations with a specified

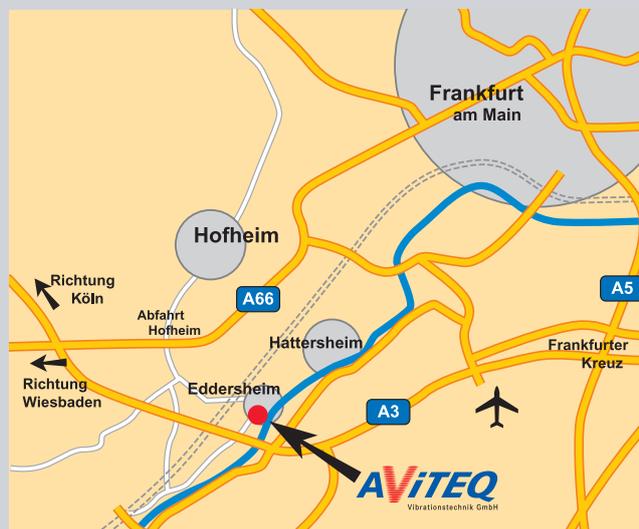
amplitude in the screen frame. Vibrating screens are frequently operated at an incline. Perforated plates with elongated holes arranged stepwise in fields ("Stufix screens") break up the material being screened further (flat screens).

VSE Series Vibrating Screens are simple and economical. The drive – an unbalanced motor – is mounted above the rigid screen frame (image). The screen executes circular or elliptical motion and is used preferably for less abrasive materials with a low bulk density. Compared to the VSO and VSB Series, the specific screen throughput q is somewhat lower.

Other AVITEQ brochures:



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