

The Task

There is a growing need to classify waste materials, raw materials, semi-finished products, and finished products more effectively. Conventional vibrating screens and trommel screens can be limited when screening materials that cause a buildup on the screen, which results in clogging or blinding of the screen openings. The bivi-TEC® vibratory screen was developed to screen even the most difficult materials, including:

- High-moisture materials such as silt, mud, shale, and clay
- Compost, leafy materials, wood waste, and peat moss
- Incinerator ash, trash, waste coal, clayey sand, and slag
- Auto shredder fluff, shredded tires, and roofing shingles
- Manufactured sand from screening

The bivi-TEC[®] Solution

Dual vibration from a single drive is the unique feature of the bivi-TEC® Screen. Two weights, vibrating at the same frequency, move relative to each other which tensions and relaxes the screen mats. The linear motion of both vibrating movements is adjustable, resulting in open screen surfaces and optimal screening performance. The banana design allows for maximum tonnage by maintaining a consistent material beddepth across the entire length of the screen.

Operating Principles

To assure the most effective screening, high-acceleration forces must be transferred to the feed material. The bivi-TEC® Screen achieves these high forces by dynamically tensioning and relaxing the flexible screen mats using a dual-vibration principle.

Enhanced by resonance, one drive can produce two vibration movements. The screen box is accelerated approximately 2g's while the screen mats can receive up to 50g's. Applications once thought to be impossible, can vow be achieved with the bivi-TEC® screen.



Sized to Fit Your Needs

The bivi-TEC[®] is available in sizes ranging from 800mm X 3M (3' X 10') to 2400mm X 9M (8' X 30')

Other Available Options

Single Deck Double Deck Half Deck Portable / Stationary Units Rigid Scalping Deck

Each bivi-TEC® vibratory screen is built to fit YOUR needs.



Double Deck bivi-TEC® Banana Screen



Deck and Screen Options

Select either single or double decks and a wide range of screen mats to meet your specific needs.

The bivi-TEC[®] Advantage

- Fine screening of very moist material
- ✓ Capable of separating below #50 mesh
- Disagglomerates clogging materia
- Large effective screening area high capacity
- Effective in all weather conditions
- Flexible Can be adjusted for varying material requirements
- High-wear-resistant polyurethane screen mats
- Rugged construction long life
- Low horsepower
- ✓Low profile

Testing & Demonstration

To properly size the bivi-TEC for each individual application, the following factors must be considered: material type, feed gradation, product specifications, moisture content, and required capacity.

Floating Frame

Frame floats with screen box. Rubber blocks connect floating frame to the screen body.

Drive

TEFC motor, V-belt drive, cardan shaft with two bearings, and straight shaft.

Unbalanced Counterweights

Rubber Springs

Hollow rubber springs reduce dynamic forces and allow the screen to operate quietly.

bivi-TEC[®] Screen Mats

The bivi-TEC screens are designed for screen cuts of 0.3 mm to 50.0 mm. The boltless attachment of polyurethane mats guarantees effective screening, easy screen mat changes, and elimination of clogging. The 13" wide mats offer greater flexibility in tuning the screen to achieve the final product - resulting in a lower replacement cost.

Installation

The screen mats are placed into the cross members and locked into place by driving in the rubber wedge strip.

Removal

The screen mats are released by driving down a corner of the wedge strip, followed by an easy pull on the mat.