



Metso 7x20 Triple Deck Horizontal Vibrating Screen - End Tension Unit #1609

#SNTSE24042

Metso TSE Series Screens

The TSE Series screens are a horizontal screen that utilize elliptical motion vibration for superior accuracy and efficiency in compact installations. They are built for stationary and portable applications in both tertiary and primary screening and can be equipped for wet or dry screening.

Improved Performance with High-Power Elliptical Vibration

The elliptical motion of the screens, along with high acceleration, allows for more power than in traditional screens. This feature delivers higher throughput and screening efficiency. TSE Series screens have a 1:3 elliptical ratio. This very aggressive 1:3 ratio causes vibration of the layer of materials in two directions. It also generates faster stratification of the layer so that fines pass through the screening mesh quickly and efficiently. These characteristics contribute to the TSE Series screens superiority in processing very sticky or clay materials and materials with high content of flaky particles.

Designed For the Toughest Applications

The body of TSE Series screens is extremely strong, supporting the stresses required by the “high power” mechanism. This robustness is provided by frames made from heavy tube cross members with stiffeners positioned in critical areas. The side plates are huck bolted without any welding.

The standard drive arrangement for the TSE Series screens is a V-belt drive. The screens are equipped with a spring-tension motor base to maintain constant belt tension, thereby reducing maintenance and extending the life span of the drive components.

The mechanical parts located inside the screens are fully protected by a rubber-lined steel guard with ports to allow any dust or debris that enters the counterweight area to fall free from any moving parts.

The triple shaft mechanism is comprised of 6 individual bearing and bearing housings assemblies with bolt on weights that are complemented with plug weights. The six individual



assemblies are synchronized with gears which create the stroke direction as well as the elliptical motion. The bearing assemblies are locked together to ensure matching stroke from side to side.

Modular Machine Design Enables Flexibility

The ability to make mechanical adjustments allows you to adjust all screening parameters in order to adapt them to all types of applications. Depending on the application, the vibration amplitude can be adjusted by adding or removing unbalanced weights bolted to the counterweights. If necessary, the synchronized gears can be set in various positions, changing the vibration angle. For standard vibration, the angle is set at 45° to correspond to the normal feed speed of materials, but it is possible to adjust it to between 30° and 60°.

Equipment As Follows:

- Estimated shipping weight 22,940
- Installation Angle 0°
- Throw/Speed 0.625" @ 800 RPM
- Motor Size 50HP – Not included
- Triple shaft screen considered at 0 degree for operation as standard
- Coil springs and dampers
- 5/16" thick side plates with huck bolt construction
- Side tension decks with seal strips for 4' screen panels
- Heavy duty tube steel decks with herringbone cross bracing
- Vibrating mechanism (160mm bearings) with oil lubrication
- Carriage bolts used to retain clamp bars – standard is 4' long bars/5 ft available upon request
- AR lined Feedbox and AR lined Discharge Lip
- Variable speed drive standard with motor mount and belt guard and tensioning device
- Hand access on triple deck screens, spray bar knockouts, bottom deck feed end curtain
- Paint – Metso Beige

Screen Configuration:

- Bottom Deck - End tensioned
- Hand of drive – Right Hand
- Motor and base frame – Not included
- Screen media – Not included



