



GreyHawk/Metso 7x20 Portable Screen Plant

#PO#2048054

EQUIPMENT ON ORDER:

Equipment As Follows:

Metso 7x20 Triple Deck Horizontal Vibrating Screen- End Tension

- Estimated shipping weight 22,940 lbs.
- Installation Angle 0°
- Throw/Speed 0.625" @ 800 RPM
- Motor Size 50HP
- 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
- AR lined Feedbox and AR lined Discharge Lip
- Right hand 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 – Grey

Screen Configuration:

- Bottom Deck - End tensioned
- Hand of drive – Right hand
- Motor and base frame – Included
- Screen media – Not included
- Crowned Middle Deck – Side tensioned
- Crowned Top Deck - Side tensioned



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°.

GREYHAWK PORTABLE 7X20 SCREEN PLANT CHASSIS

1. MAIN CHASSIS

- Main frame constructed of wide flange structural steel beams
- Tandem axle with (8) 11x22.5 radial tires
- Complete air brake system
- LED side marker and tail lights
- Fifth wheel hitch
- Catwalk around the sides and feed end of the screen

1. DISCHARGE CHUTES

- Roll away chute (Manual)
- Constructed of 1/4" Mild Steel with 1/4" stitch welded AR Liners
- Top deck can discharge over the kingpin, or to either cross conveyor (4 blending gates)
- Middle deck discharges onto front or rear cross conveyor (4 blending gates)
- Bottom deck discharges onto rear cross conveyor

1. SIDE DISCHARGE CROSS CONVEYOR-30" (QTY 2)

- Formed plate design
- Superior 5" CEMA C channel mount idlers
- Superior 5" CEMA C return idlers
- Argonics belt scraper
- 12" tube in tube take-ups
- 2 ply conveyor belting
- Drive Pulley
 - Superior 10" vulcanized drum pulley
 - Pillow block bearings (SCM)
 - Shaft mount gearbox-size #2
 - WEG 7.5hp motor
- Tail Pulley
 - Superior 10" wing pulley
 - 4-bolt flange bearing (SCM)

1. REAR DISCHARGE UNDERSCREEN CONVEYOR-60"

- Formed design
- Superior 5" CEMA C channel mount idlers
- Superior 5" CEMA C return idlers
- Argonics belt scraper
- 12" tube in tube take-ups
- 3 ply, 1/4 top cover conveyor belting
- Drive Pulley
 - Superior 14" vulcanized drum pulley
 - 3-7/16" pillow block bearings (SCM)
 - Shaft mount gearbox-size #5
 - WEG 20hp motor
- Tail Pulley
 - Superior 12" wing pulley
 - 4-bolt flange bearing (SCM)

1. ELECTRICAL

- NEMA electrical enclosure
- Enclosure is bolted to a steel support frame for setting on grade during operation
- Lifting eyes
- Connected to plant with 15' of cable to allow the customer to position the enclosure
- Door interlocked disconnect linkage
- Warning horn
- Circuit breakers
- NEMA rated starters
- Screen motor-50HP
- Cross conveyor motors-7.5HP (reversing)
- Rear discharge conveyor motor-20HP
- Qty 2 auxiliary starters-20HP
- Hour meter
- Start/stop pushbutton control

1. HYDRAULICS

- 13HP Honda Hydraulic Power Unit
- (4) Leveling jack legs

1. SAFETY/GUARDING

- We install all standard guarding, customer will be responsible for compliance with local codes.

1. GENERAL:

- Paint
 - Sandblasted
 - Two-part epoxy primer
 - Two-part urethane topcoat
 - Chassis Color-GH Beige
 - Handrail & Guarding Color-GH Orange
 - Decals-Orange & grey striping
- (1) sets of owners/parts manuals

