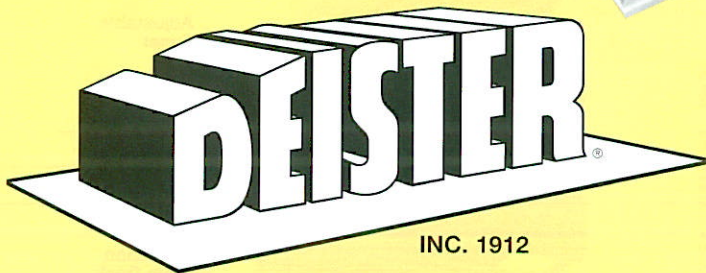


Type BHST-1514

Type BHSM-2618



Type BHST and BHSM High Speed VIBRATING SCREENS

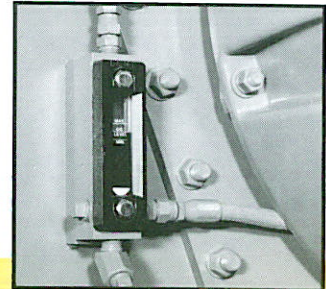
Deister knows the secret to high capacity removal of fines

Proper depth of material bed management in combination with high G-force operation result in optimum separation of fine materials. Steeper inclination (typically 30°) of Deister type BHST and BHSM vibrating screens result in a faster rate of particle travel, thus reducing the depth of bed of heavy feed rates. The reduced depth of bed allows the finer particles to work their way towards the openings for sizing. Higher than conventional

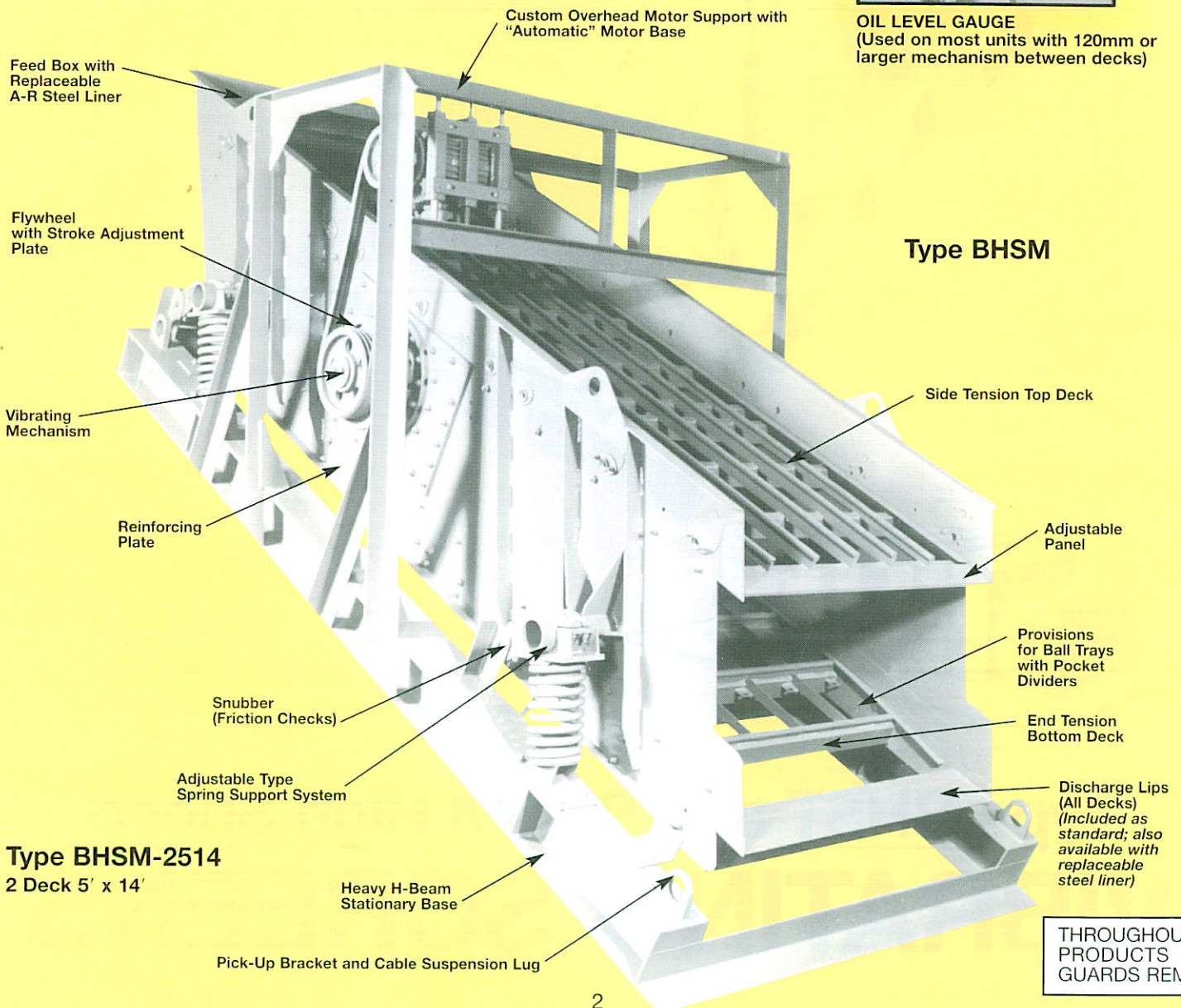
operating speed combined with sizable amplitude of vibration translate into high G-forces that quickly stratify the material bed so that effective screening can begin. In addition, the high G-forces resist the accumulation of damp fines on screen wires (blinding).

All single deck, and the bottom deck of 2-deck units are constructed with end tension screen cloth. This eliminates the channeling of fines

to the sides caused by the crown of side tensioned cloth. The resulting uniform depth of bed across the full width of the unit provides maximum screening efficiency.



OIL LEVEL GAUGE
(Used on most units with 120mm or larger mechanism between decks)



THROUGHOUT THIS E
PRODUCTS HAVE E
GUARDS REMOVED TO

Explanation of Model Letters

B = H-Beam Base
 HS = High Speed
 T = Top Mounted Vibrating Mechanism
 M = Middle Vibrating Mechanism
 CS = Cable Suspended Unit

Explanation of Model Numbers

First Number = Number of Decks
 Second Number = Width in Feet
 Third and Fourth Numbers = Length in Feet

Example: BHSM-2514
 H-Beam Base . . . High Speed
 Middle Vibrating Mechanism . . .
 Two Decks, 5' wide x 14' long.

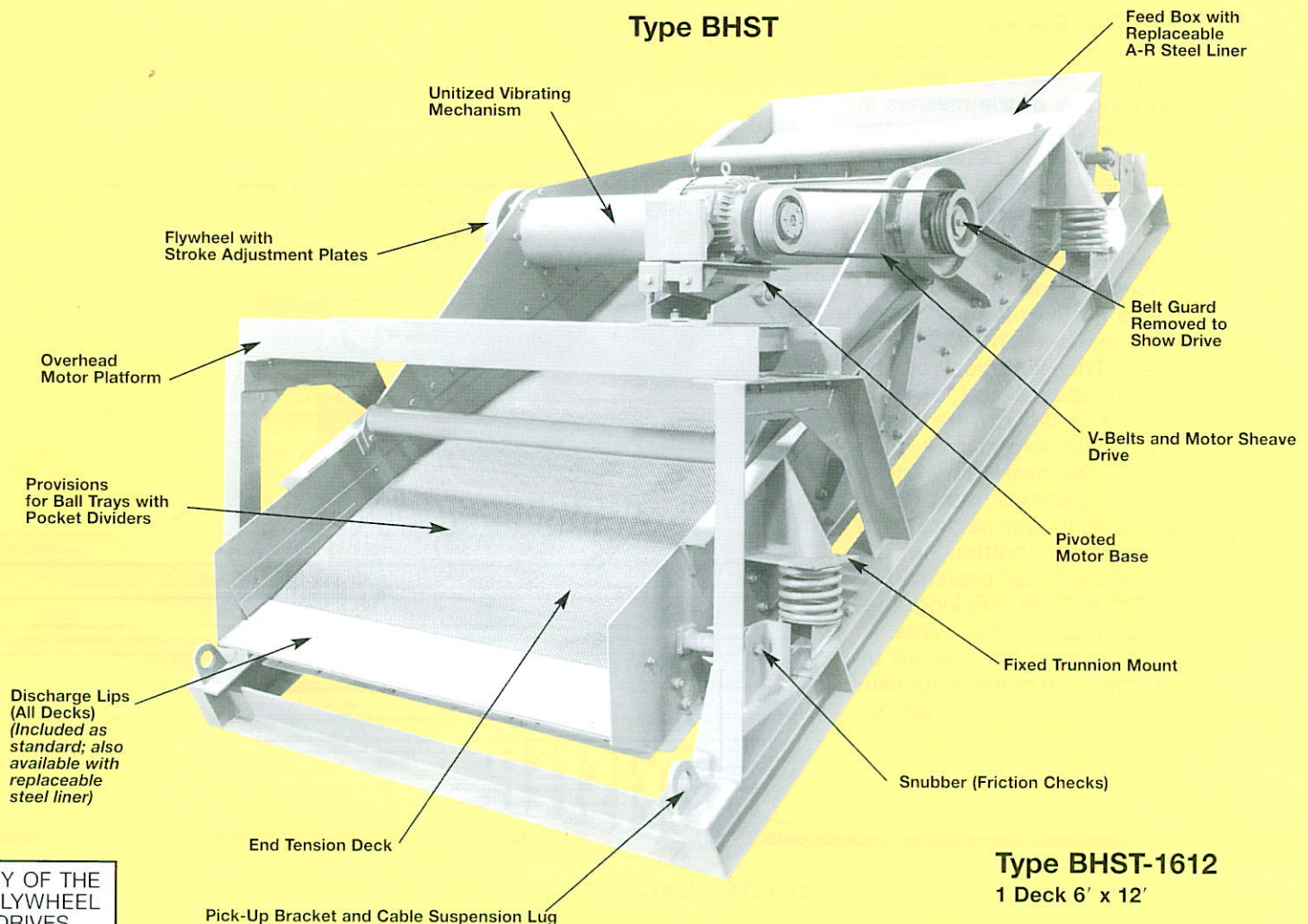
Standard Equipment

1. Oil lubricated vibrating mechanism
2. Steel coil spring suspension system on pivoting supports
3. Snubbers (friction checks)
4. Pick-up brackets and cable suspension lugs
5. Rubber spring-tension screen cloth tensioning device
6. Tension plates of exclusive design
7. Interchangeable screen panels
8. Bolted construction for easy replacement of wear parts
9. Discharge lips
10. Rubber back sheet to seal feed end (on 2-deck)
11. Adjustable throw
12. Sideplates reinforced with $\frac{3}{8}$ " x 3" vertical braces
13. Provisions for ball tray decks
14. End tension bottom deck
15. Side tension top deck with pivoting feed end and discharge end sections

Optional Equipment

1. Wide-flange H-beam base
2. Feed Box
3. Motor Mount, V-belt drive, and guard
4. Spray Pipe Holes
5. Spray Pipe Equipment
6. Turbo Washer Troughs
7. Horizontal Sub-base
8. Dust Enclosure (steel or rubber)
9. Ball Tray Decks
10. Heated Decks
11. Replaceable side and discharge lip liners
12. Polyurethane coating on exposed surfaces
13. Tension Wedges for screen cloth tensioning (side tension only)
14. A-R Steel, Rubber or Urethane Wear Liners
15. Rubber- or Urethane-covered Tension Plates
16. Manganese and A-R Steel Wear Plates for Tension Plates

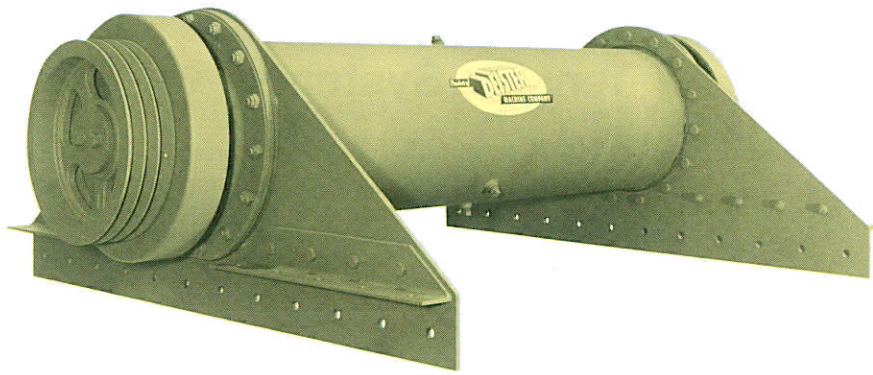
Type BHST



Type BHST-1612

1 Deck 6' x 12'

LETIN MANY OF THE
 T AND FLYWHEEL
 HOW THE DRIVES.



SLINGERMIST LUBRICATION

Deister's exclusive slingermist lubricating system makes it possible for Deister screens to operate at higher speeds and at lower operating temperatures. This system is the ultimate in oil lubrication of anti-friction bearings and assures safe operating temperatures under extremely hot climatic conditions where it, in effect, acts as an oil cooling system.

DEISTER unitized long-life vibrating mechanism

An outstanding feature of the **Type T** Deister Vibrating Screen is the exclusive "unitized" vibrating mechanism mounted on top of the vibrating frame.

The entire vibrating mechanism is a precision constructed, jig assembled unit. It incorporates all the advantages of a two-bearing vibrating mechanism and runs in a bath of oil with internal and external labyrinth seals to prevent loss of oil and entrance of dirt.

The lower portion of the shaft casing tube serves as the oil reservoir across its entire length. The oil is agitated by slingers on the eccentric shaft and constantly envelopes the spherical roller bearings and all moving parts. It should never be necessary to add oil to the mechanism, with only periodic oil changes recommended. Renewable sleeves between the inner race of the bearing and the shaft prevent wear on the shaft. Should wear on the sleeve occur, even after years of rugged service, the original close "factory-tolerances" can be easily restored by the simple replacement of the renewable sleeve.

In its 70 years of building vibrating screens, the Deister Machine Company has always designed its vibrating mechanisms with the bearing a slip fit on the shaft or replaceable sleeve, and a press fit in the housing (sleeves not used prior to 1950). The replaceable sleeve is a slip fit on the shaft. Slip fits assure more even wear on bearings and sleeves—providing longer life—easier replacement.

The vibrating mechanism is

demountable and readily interchangeable. Where a number of the same size screens are in operation, the "unitized" mechanism can be unbolted and attached to another frame without disturbing any of the internal clearances of the shaft and bearings. The large diameter shaft casing tube, welded

or bolted to $\frac{5}{8}$ " thick housing plates, maintains proper alignment of the entire assembly.

Stroke (throw) adjustments can be made in the field by simply adding or removing counterweight plates to/from the unbalanced fly-wheels.

Type M Vibrating Mechanism

The vibrating mechanism is located between decks on all **Type M** units, regardless of size. The vibrating mechanism is located between decks on all units longer than 16' and on most units with two decks.

The vibrating mechanism mounted between decks incorporates all the features of the **T** top-mounted mechanism, with the exception of the "unitized" feature. The steel tube shaft casing is protected by the standard $\frac{3}{8}$ " thick

steel-backed rubber tack-welded to the tube, or a replaceable steel shield or thicker rubber when required.

The **Type M** mechanism produces a uniform true circle movement of the vibrating frame and screening surface.

Dual vibrating mechanisms are standard on 6' x 14' 2-deck screens and larger. The two shafts are each individually motor driven, and a timing belt prevents any non-synchronous motion.



Deck Surface Tension Systems

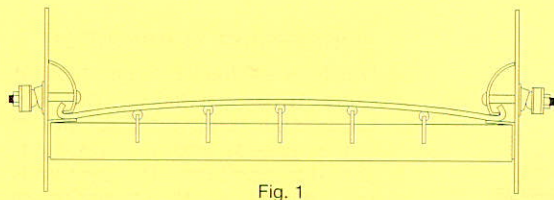


Fig. 1

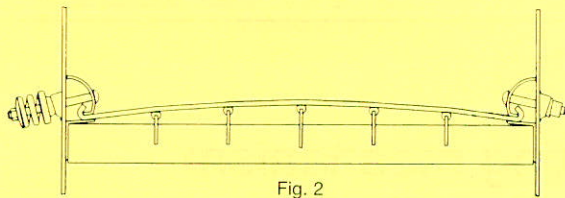


Fig. 2

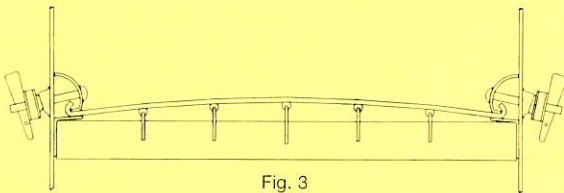


Fig. 3



Fig. 4

FIGURE 1. Standard “rubber spring & nut” tension assembly for 3', 4', 5', & 6' wide side tension decks. Powerful rubber tension springs and tension plates hold the screen cloth over a series of support bars arranged in an arc. Support spacing is governed by size of opening and shape of screening media. As the screen cloth wire wears thin or becomes stretched, the springs automatically keep the cloth in constant tension, thereby preventing whipping or flexing of the cloth, causing wire breakage.

Ledge angles are formed to 94° to provide the correct interlocking fit between tension plate, screen cloth hook strip, and the supporting ledge angle—prevents pinching or “rocking-up” of the screen cloth in the hook-strip area, which causes premature breakage.

Fewer tension assemblies are required due to the stronger curved tension plates. The method shown in Figure 1 is recommended for medium and fine screen cloth or lightweight perforated plate.

All assemblies (Figures 1 thru 3) are interchangeable, as holes and castings in sideplates are identically located.

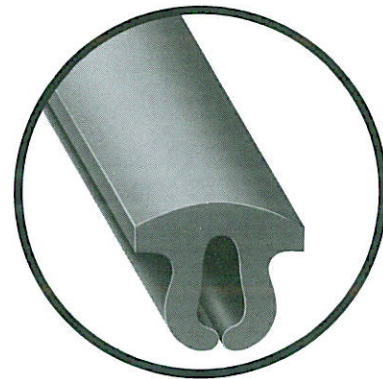
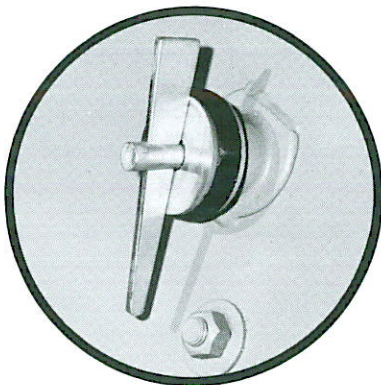
FIGURE 2. Optional “automatic” spring tension assembly for side tension decks.

FIGURE 3. Optional tension wedge and “rubber spring” assembly for side tension decks—wedges held firmly in place by spring action—constant attention unnecessary.

FIGURE 4. Standard “rubber spring and nut” tension assembly for end tension decks—double crown with split screen cloths—downward hooks in center with molded rubber (as shown) or steel “bolted-type” cover strip.

Tension Wedge

Deister Tension Wedge and “Rubber-Spring” screen cloth tensioning device, with the advantage of quick tightening or easy release, while at the same time providing constant tension through the action of the molded rubber spring.



Snap-on Rubber Center

Deister “snap-on” molded rubber center hold-down strip generally used on most end tension screen cloth applications, sealing the opening between cloth sections.

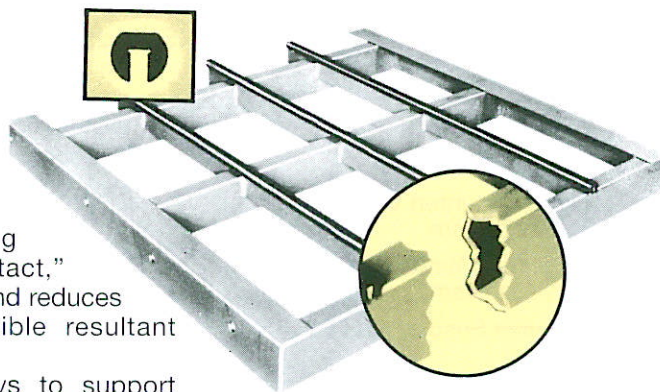
Replaceable Support Trays

The panels, or trays, supporting the screening medium are of rugged construction. The standard trays are made of formed 94° angles, flats and rectangular tube transverse members braced and welded together. The side members of these trays are jig drilled and are bolted to the vibrating frame.

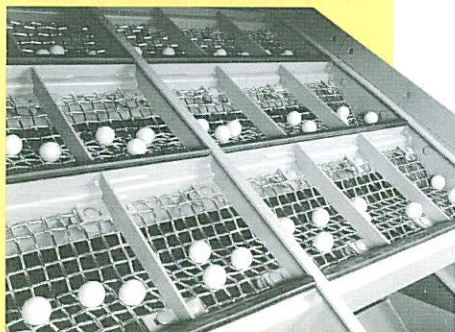
Specially molded rubber buffer strips snap on longitudinal supporting bars. This rubber guard

supports the screening medium, spreads contact point, eliminating so-called "line contact," reduces abrasion, and reduces friction with possible resultant breakage.

Replaceable trays to support screen cloth, rubber cloth, or other special screening media are constructed of tubular or channel



transverse members welded to side members bolted to the vibrating frame.

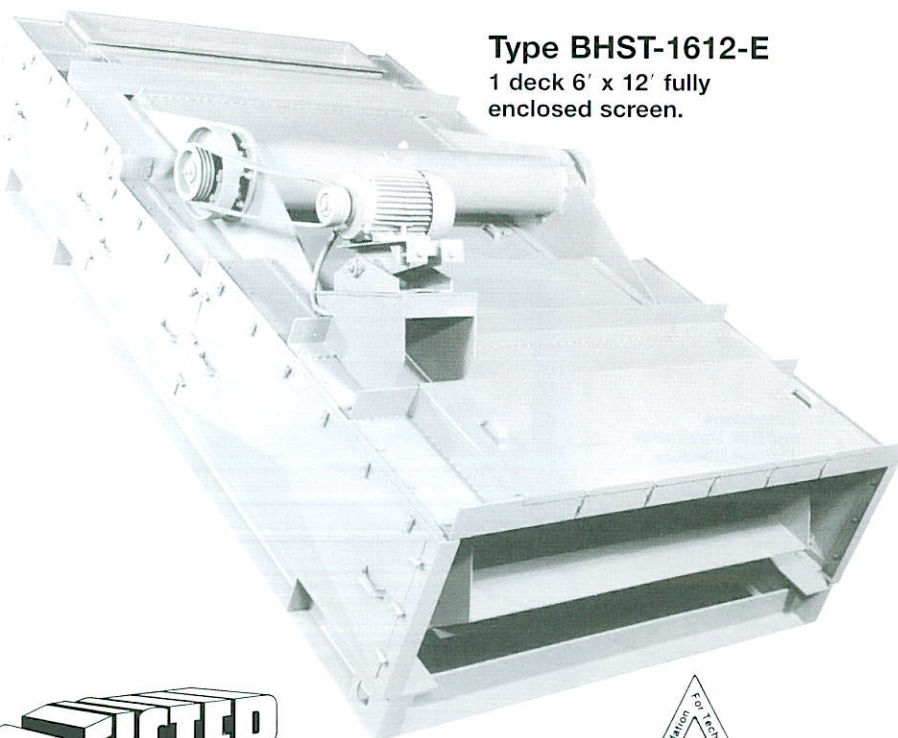
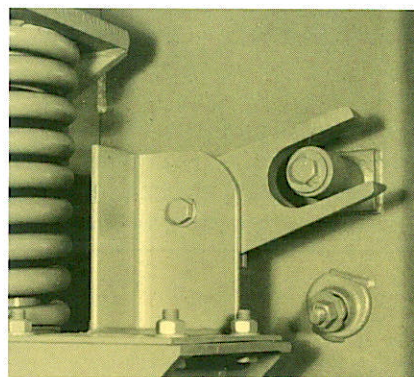


Ball Tray Decks

The ball tray is used as a means of reducing or eliminating blinding of the meshes in the screen cloth, usually in the bottom deck. It consists of a wire cloth panel or perforated plate with relatively large openings placed beneath the screen cloth, and the space between divided into compartments for the purpose of carrying resilient rubber cleaning balls. The vibration of the screen causes the balls to bounce up against the underside of the screen cloth, driving out the near-size irregular shaped particles wedging in apertures as well as creating a secondary vibration in the screen cloth that prevents fine particles from sticking and building up on the wires. In most cases, a ball tray will be effective with material containing as much as 5% moisture.

Snubber

Snubbers (friction checks) are an important part of any "base-mounted" type unit, as can be seen by illustrations on this and other pages. The spring-loaded horseshoe-shaped arm comes in contact with the pin extension only when the vibrating frame passes through the critical speed area on start-up and shut-down. The snubbing action prevents the live frame from hitting chutes or any stationary structural members during this period, in addition to dampening possible excessive vibration transmission at the same time.



Type BHST-1612-E

1 deck 6' x 12' fully enclosed screen.



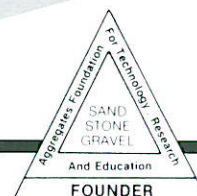
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