Stainless Steel Tru-Balance

Model 511
Model 711
Model 821

Shown with front lift off shield removed

The ultimate in reliable performance, capacity, versatility and sanitation for your sifting or screening operations

Great Western Manufacturing

Feature Overview

- Gyratory motion: gentle and accurate
- High capacity. Three different models available. Each using 4 to 9 sieve frames. Screen areas from 15.6 ft² to 57.6 ft².
- Accurate separation and sizing of a single product stream into two to five particle sizes.
- Compact floor area.
- Screen area matched to application.
- Adaptable to a wide range of products, capacities, number of separations, and screen sizes.
- Sanitary construction. Sieves welded without rivets, nuts or bolts. No crevices.
- Easy opening and reliable, positive closing provided by pneumatic sieve compression system.
- Reliable Tru-Balance drive mechanism that results in less stress on the sieve frames, less motion between the sieve frames and a constant pressure sieve clamping mechanism.
- Customized to suit your installation requirements.
- Every unit test run and balanced prior to shipping.
- Easy installation.

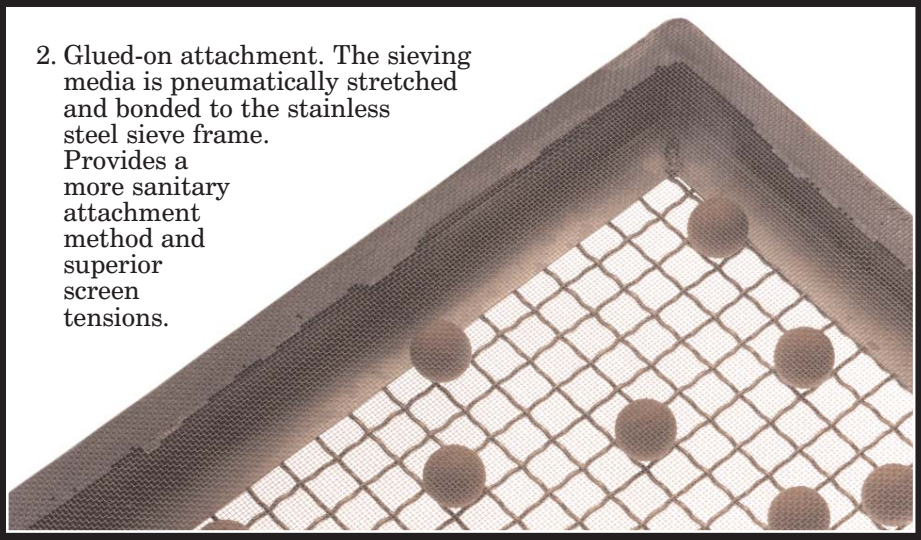
Shown with front lift off shield removed

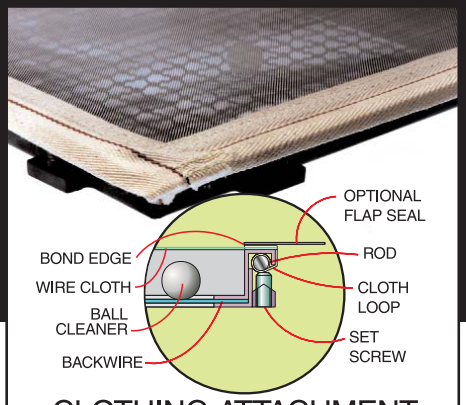
Construction

- 2B stainless steel is used for all product contact surfaces.
- Laser cutting of the sieve frames, as well as all other stainless steel sheet components such as the bottom outlet carrier and outlet transitions, ensures precision fit. All components are heliarc welded with a glass bead blasted finish.
- Sieve fabrication techniques designed to minimize welding. No bolted or riveted joints.
- Each sieve frame has an easily removed insert tray. Interior of sieve is completely accessible for cleaning. Clothing is attached to the insert tray in one of two ways

1. Mechanical attachment. A system of looped edges sewn in the perimeter of the sieving media that allow insertion of stainless steel rods. The edges are then clamped and tensioned around the perimeter of the stainless steel insert tray by a number of set screws.

2. Glued-on attachment. The sieving media is pneumatically stretched and bonded to the stainless steel sieve frame. Provides a more sanitary attachment method and superior screen tensions.



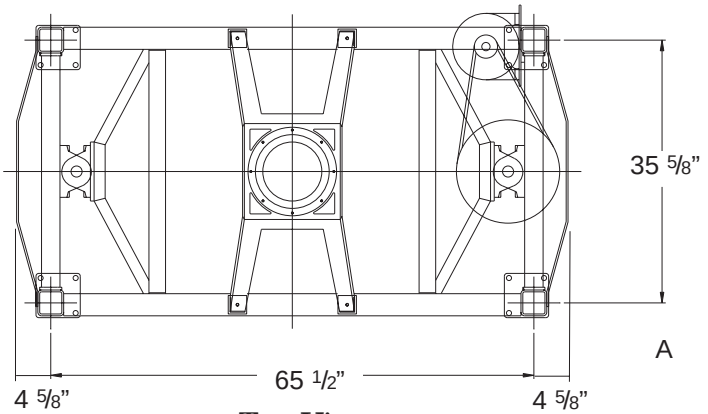


CLOTHING ATTACHMENT DETAIL

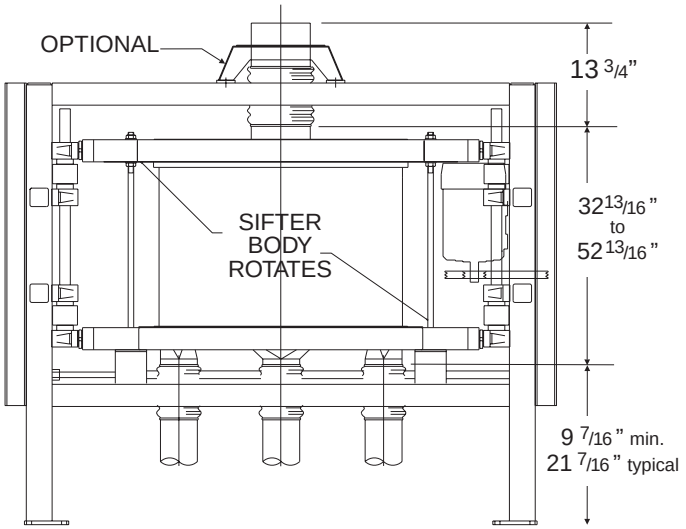
- Our screen tray contains balls or cubes under our mesh to gently unplug the screen openings eliminating beaters or paddles and the resulting abrasion that fractures fragile ingredients and reduces screen life.
- Standard drive frame and guards fabricated with mild steel finished with epoxy paint. Stainless steel drive components are optional.
- Machine speed and circle matched to product requirements. Variable speed drive can be provided for precision separation adjustment.
- Low power requirements. Standard drive is 1½ hp (1.1 kW) with 6 pole motor.
- Every machine is test run and balanced at the factory prior to shipment.
- Ready for installation when it is received. Normally shipped complete with motor, V-belt drive, screen cloths, and connecting sleeves. Position the machine, bolt it down, spout the product to and from the machine, connect the inlet and discharge sleeves, wire the motor and you're ready to go!

Model	Sieve Size	Throw	A	Cloth Area Sq.Ft./Sieve
511	30" x 30"	2 5/8"	30"	3.9
711	33" x 33"		33"	4.7
821	35" x 40"		40"	6.4

Dimensions



Top View



Front View

Our pneumatic sieve compression and modular interlocking frame simplifies your sanitation and maintenance.

- Sifter can be opened, sieves completely removed and maintained, and then reassembled in minutes...with the turn of a key without special tools. Downtime is minimized.
- A pneumatic sieve clamping system allows fast disassembly. Sieves rest on lower drive frame carrier. The bottom sieve is held by stops. The remaining sieves and spacer each interlock and nest together. Using pneumatics the upper drive frame is raised to open the sifter or lowered to compress and seal the sieve stack. The pneumatics maintains constant compression while the machine is in operation.
- Our drive and frame carriers are engineered to minimize frame seal wear and eliminate leaks. The Tru-Balance drive transfers the gyratory motion to both the top and bottom drive carriers simultaneously. In turn, the carriers equally impart the sifting motion to both the top and bottom of the sieve stack. The inertial "top heavy" lag, common to sifters with drive mechanisms positioned below the sieve frame stack, is avoided.
- Stainless steel sieve and product contact zone construction allows cleaning to be accomplished with dry brushing, air cleaning, water wash down or steam cleaning.
- Dust tight gasketed construction. No suction requirements.
- Sieves remove completely. Smooth base plate, easy access to outlet transitions.
- Upper and lower drive carriers remain attached to the drive mechanism.

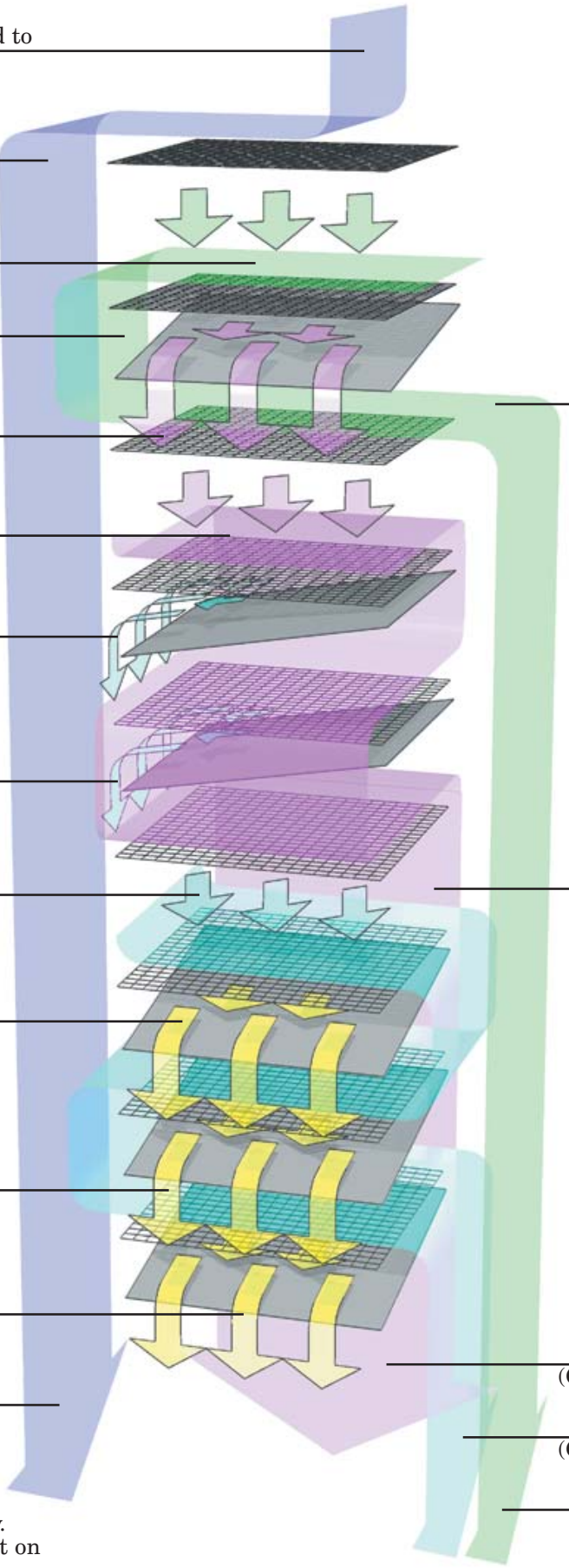
Our horizontal gyratory motion is gentle. It reduces product degradation and is superior to designs using vibratory or centrifugal action.

- Vibratory designs bounce materials vertically which shortens the time they are in contact with the screen and reduces efficiency. Oversized elongated particles pass through the screen when they are upended impairing separation quality.
- Our gentle gyratory sifting action is less severe than centrifugal sifters. Separation of near sized particles is more precise and the risk of fracturing oversize impurities and forcing them through the screen is diminished.

Our stacked screen construction offers many advantages over single deck screening equipment.

- Vertically nested series of frames will conserve your valuable plant floor space while offering you maximum grading flexibility. (From 4 to 9 frames)
- Multiple screen frames allow you to proportion the sifting surface of each specific mesh for highly efficient grading of materials. (Up to 5 cuts)
- Smaller frames and screens are easier for you to handle, change and store than large unwieldy single bed screens.
- Smaller screens are less likely to sag and form pockets that collect material.
- Our Tru-Balance counter weighted drive neutralizes frame and mounting vibration allowing you to attach the unit to the floor or ceiling with minimal footings or supports.

Indicative Sifter Configuration and Product Flow



Raw material from inlet deflected to head end of sieve #1

Oversize from sieve #1 exit sifter.

Thrus of sieve #1 fall to sieve #2.

Overs from sieve #2 fall to sieve #3.

Thrus of sieve #2 fall to pan, exit side of sieve.

Thrus of sieves #2 & #3 flow onto sieve #4.

Thrus of sieve #4 fall to pan, exit side of sieve.

Thrus of sieve #5 fall to pan, exit side of sieve.

Thrus of sieve #6 join thrus of sieves #4 & #5. They flow onto sieve #7.

Thrus of sieve #7 fall to pan, exit side of sieve.

Thrus of sieve #8 fall to pan, exit side of sieve.

Thrus of sieve #9 fall to pan, exit side of frame. Joined by thrus from sieves #7 & #8 they exit the sifter.

Oversized material (Overs of sieve #1)

Flow for illustrative purpose only. Number of separations dependent on specific application requirements.

Sieve #1 - No Pan
Scalping screen

Sieve #2 - With Pan
Coarse mesh screen

Overs of sieves #2 & #3 exit sifter

Sieve #3 - No Pan
Coarse mesh screen

Sieve #4 - With Pan
Medium mesh screen

Sieve #5 - With Pan
Medium mesh screen

Sieve #6 - No Pan
Medium mesh screen

Overs of sieves #4, #5, & #6 exit sifter.

Sieve #7 - With Pan
Fine mesh screen

Sieve #8 - With Pan
Fine mesh screen

Sieve #9 - With Pan
Fine mesh screen

Medium material (Overs of sieves #4, #5, & #6)

Small material (Overs of sieves #7, #8, & #9)

Coarse material (Overs of sieves #2 & #3)

Great Western is a name process industries have trusted since 1858.

Stainless Steel Tru-Balance Models accurately and economically process your ingredients.

- Sifting
- Screening
- Scalping
- Grading
- Removing Fines

Ideally suited for dry, free-flowing powders, flakes and granular materials.

- Flours
- Chemical Powders
- Dried Vegetables
- Plastics
- Minerals
- Abrasives
- Sugar
- Salt
- Spices
- Pigments
- Etc.

Who Are We?

Great Western Mfg. Co., Inc., designs and manufactures custom industrial processing machinery. Our line of sifters, the Company's primary product, are used for scalping, grading and fines removal from dry, free-flowing powders and granular materials.
We serve the cereal grain processors, mix plants, bakeries and snack food producers, spice processors, and the pet food, chemicals and plastics, and mineral industries.

Design Engineering—Each of our sifters is engineered for the customer's specific application. Many options are available that allow the sifters to be customized to meet their specific need.

Test Lab—We maintain a complete testing laboratory to evaluate product samples and make equipment recommendations. There is no charge or obligation for this service. Contact Great Western to discuss testing requirements.

Great Western Manufacturing

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