

QA Series In-Line Sifters

**Sifting equipment for
Food Safety and
Quality Management
Systems**

**The important role of
sifters in quality
assurance systems:**

- Control and monitor internal plant sanitation conditions.
- Provide an indication of changing process conditions.
- Ensure that incoming ingredients have been manufactured, stored and transported under sanitary conditions and are unadulterated and on spec.
- Remove filth and prevent your products from being branded as adulterated.



**An economical quality assurance and
HACCP solution for the needs of food,
pharmaceutical and chemical operations.**

In-Line Sifting

Great Western’s In-Line sifters are uniquely engineered to work under pressure rather than a pressure vessel adapted to act like a sifter.

Designed for direct insertion in pressure or vacuum dilute phase pneumatic conveying systems, In-Line sifters are often the best choice in a quality assurance application because of system simplification.

Because we put the priority in sifting, our In-Line sifters incorporate the features engineers, sanitarians, maintenance personnel and operators have come to expect in any reliable gravity flow sifter: **accessibility, maintainability and reliability.**

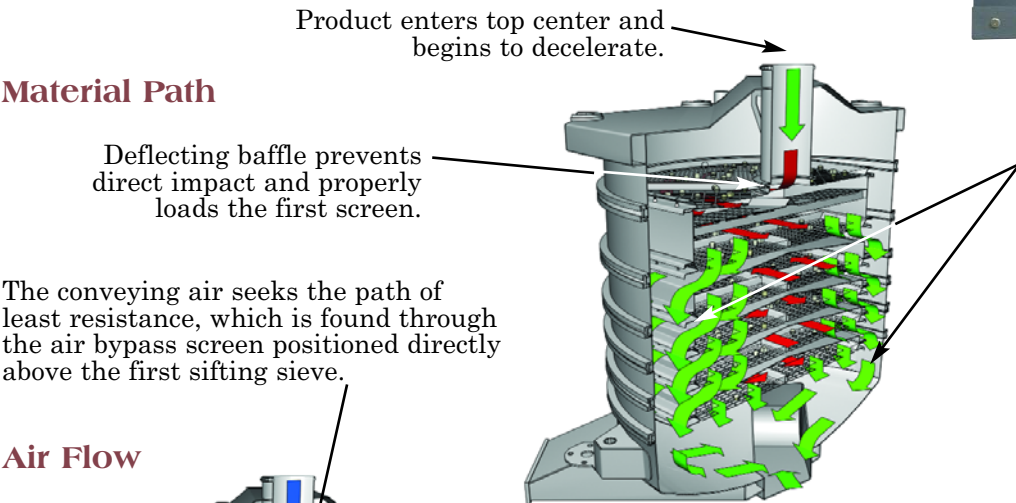
Flow Scheme

The In-Line Tru-Balance Sifter works like our multi-sieve gravity flow sifters, except that it operates at the pressure or vacuum pneumatic conveying line conditions.

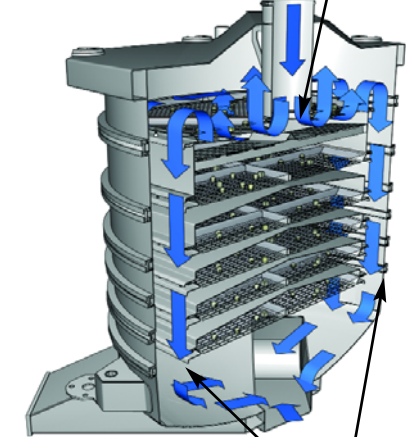
Great Western’s air bypass arrangement equalizes the air pressure above and below the sifting screens; as a result, no force other than gravity causes the product to pass through the screen.

The air is “filtered” separately from the product to ensure that no oversize impurities can bypass the protection of the sifter.

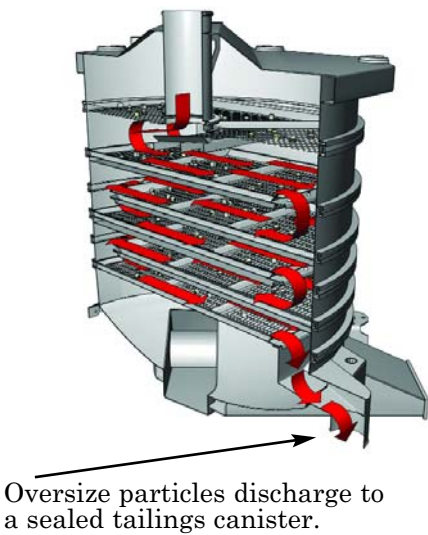
Material Path



Air Flow



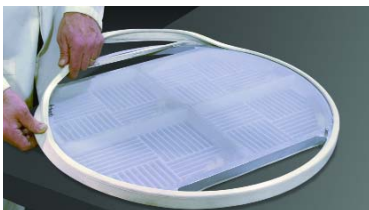
Tailings



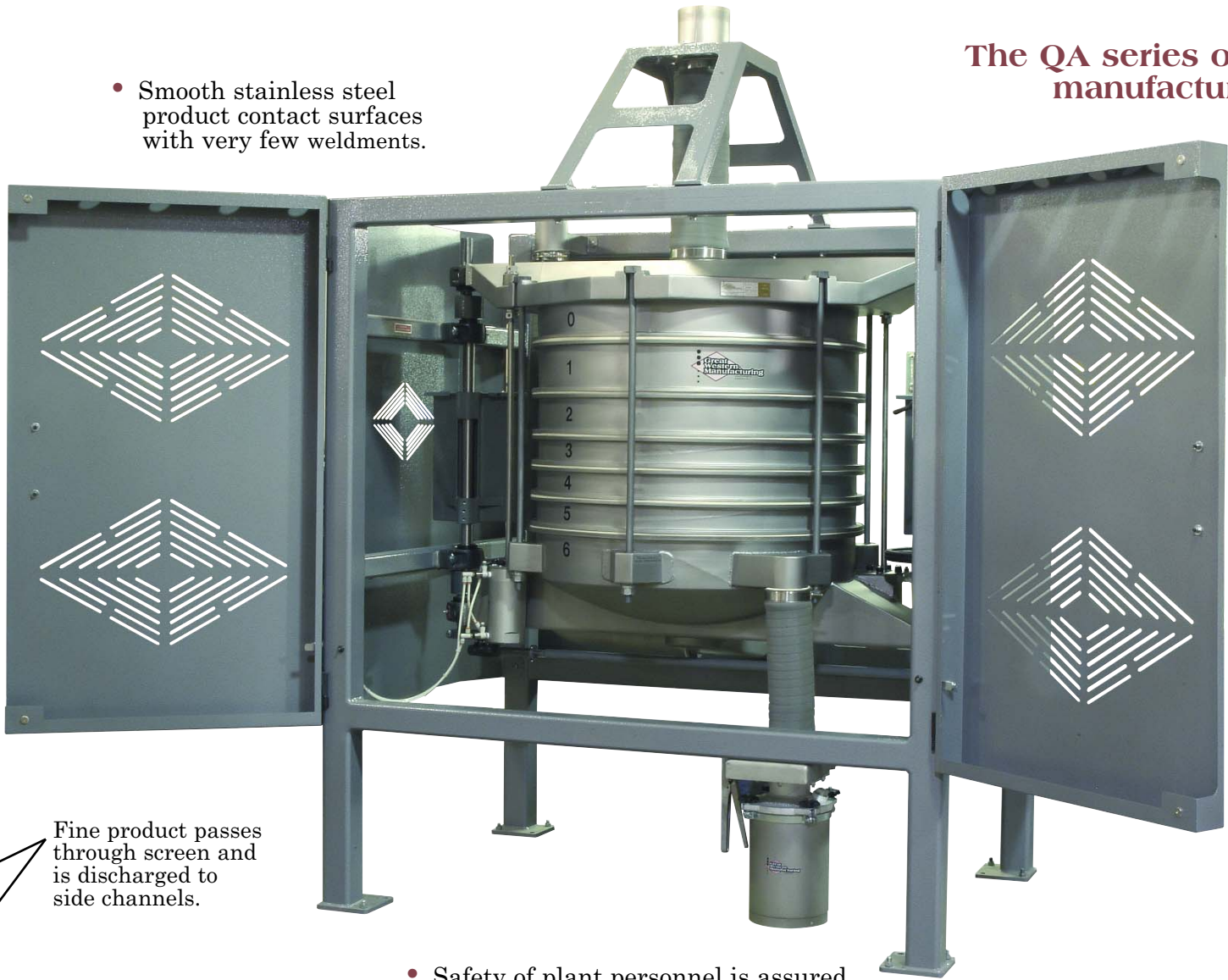
Sieve



Tray



• Snap-on food grade rubber gaskets do not use adhesives



- Smooth stainless steel product contact surfaces with very few weldments.

- Safety of plant personnel is assured with hinged guards on the front and back of the machine that provide liberal access.



- The pneumatic sieve compression system speeds access for inspection and maintenance.



- Proven, reliable Tru-Balance drive mechanism provides the gentle, gyratory sifting motion for which our sifters are known.



- Tailings container can be checked without the use of tools.



- Stainless steel lift-out screen frames utilize glued on screens for the optimum in sanitation, sifting performance, cleaner performance, and screen life.

The QA series of In-Line sifters is engineered and manufactured with a high level of sanitation.

Standard Features

- Engineered to handle high capacity quality assurance sifting applications gently and efficiently.
- Ball & cube cleaners prevent screen blinding.
- Stainless steel construction of all product contact areas.
- Standard top vertical inlet & discharge simplifies installation.
- Standard inlet and discharge support brackets eliminate custom fabrications.
- Pneumatic sieve compression system with tie rods securely seal the nest-together sieve rings.
- Nest-together sieve frames eliminate the need of a housing & enables the machine to be quickly & completely dismantled in minutes.
- Individual sieve rings contain a lift-out tray frame which has mechanically stretched and glued-on screens for the utmost in performance and sanitation.
- Snap-on food grade rubber gaskets do not use adhesives for attachment.
- Lift-out tray frames can be re-screened indefinitely.
- Tailings canister with manual butterfly valve enable the tailings to be emptied even with the sifter in operation.
- Reliable Tru-Balance drive straddles the sifter’s center of gravity, and keeps the sifting motion in the machine.



The QA Series of In-Line Tru-Balance Sifters are precision-built sifting machines used for quality assurance applications, and designed for direct insertion in a pneumatic conveying line for the removal of a small amount of oversized impurities.

Usually constructed for floor mounting with a top inlet and top discharge, custom configurations for downward directed discharges and multiple floor layouts are easily accommodated. An important benefit of the reliable Tru-Balance drive is that no massive foundation is required.

Its compact, space saving design with light weight components enable the sifter to be easily dismantled for inspection, maintenance or cleaning. The sieve rings and screen trays nest-together and are stacked one on top of the other on the lower dome. The number of sieves required is based on the product, conveying rate and sieve mesh size for each application.

A pneumatic sieve compression system and draw rods compress the stack of sieves between the upper and lower domes and create an air-tight unit. The upper and lower domes are connected to the drive components which are supported on the two sides within a tubular frame.

The In-Line Tru-Balance Sifter uses standard motors and V-belts to turn the two counterweights positioned on the left and right sides of the machine. These weights straddle the machine's center of gravity and counterbalance the mass of the rotating sifter housing. This unique drive mechanism invented by Great Western ensures a smooth, balanced operation and minimizes building structural demands. The shake stays in the sifter! Mechanically, there are no gear boxes that can leak, and no sifter knuckles to wear out.

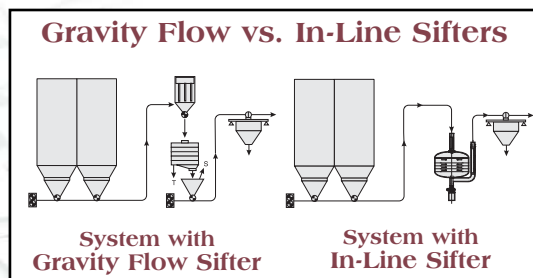
Gravity Flow vs. In-Line Sifters

Gravity flow (atmospheric pressure) sifters are not designed to accept air flow that will influence the sifting action. When properly applied, many gravity flow systems require two blowers along with associated filter receivers, airlocks, surge hoppers and dust control to enable the product to reach its destination.

In contrast, In-Line sifters are inserted directly into the pneumatic conveying system, thus eliminating the need to switch from pneumatic conveying to atmospheric pressure gravity flow sifting and back, saving a great deal of costly equipment.

Not only are the initial system investment and installation costs substantially lower, but the on-going operation, maintenance and sanitation expenses over the life of the system are also reduced.

Another important benefit of the In-Line concept is the ability to place the sifting protection as close to the finished product as possible, minimizing the amount of equipment after the sifter which could be a source of contamination.



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