DERRICK®

STACK SIZER®

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The capacity of five separate fine particle wet screening machines in the footprint of one!

The Derrick® Stack Sizer® redefines fine particle wet screening, offering high capacity and exceptional efficiency in minimal space. Consisting of up to five individual screen decks positioned one above the other and operating in parallel, the Stack Sizer provides a unique combination of high capacity and efficiency that sets the Stack Sizer far above the nearest competition. Operators worldwide are using the Stack Sizer in a wide variety of applications and capitalizing on the numerous benefits of these remarkable machines to earn significant returns.

Flo-Divider™

5-Deck Stack Sizer

FEATURES & BENEFITS

1. Screen Decks

- Up to five decks stacked one above the other operate in parallel, giving high capacity in minimal space
- Easy access for maintenance, servicing, and replacement of screen panels
- Simple drawbolt tensioning system permits all panels to be changed on a five-deck machine in about 30 to 40 minutes
- Urethane screen frame coating provides abrasion resistance

2. Derrick Integrated Vibratory Motors

- Low sound production
- Dual 2.5 HP (1.9 kW) Super G® vibratory motors are standard on the Stack Sizer providing uniform linear motion over the entire screen width and length of all screen decks
- Super G motors offer maintenance-free, greased-for-life bearings (Two-year warranty)
- Optional Super G2® vibratory motors offers a continuous recirculating internal oil lubrication system (Three-year warranty)

3. Polyweb® Urethane Screen Panels

- Up to 45 percent open area for maximum flow capacity
- Full range of openings down to 325 mesh (45 microns) permits screening from coarse to super fine particles
- Unique non-blinding design for optimum efficiency and performance
- Long Lasting – 6 to 12 months is common

4. Flo-Divider™

- Equalizes feed flow from source to each deck for optimal separation efficiency
- Custom-designed to meet process and layout requirements
- Available in wide range of discharge outlets from 2-way to 15-way
- Equipped with dart valves to stop the flow to one or more outlets
- Optional low profile inline Flo-Divider is available to accommodate height restrictions

5. Feeders

- Urethane pockets built into the feeder create a uniform distribution of feed slurry across the entire width of the screen
- Easily removed front cover facilitates maintenance and debris removal
- Inlet pipe configurations custom designed, if needed, to meet equipment layout requirements
- Rubber-lined for long life

6. Repulp Spray System (Optional)

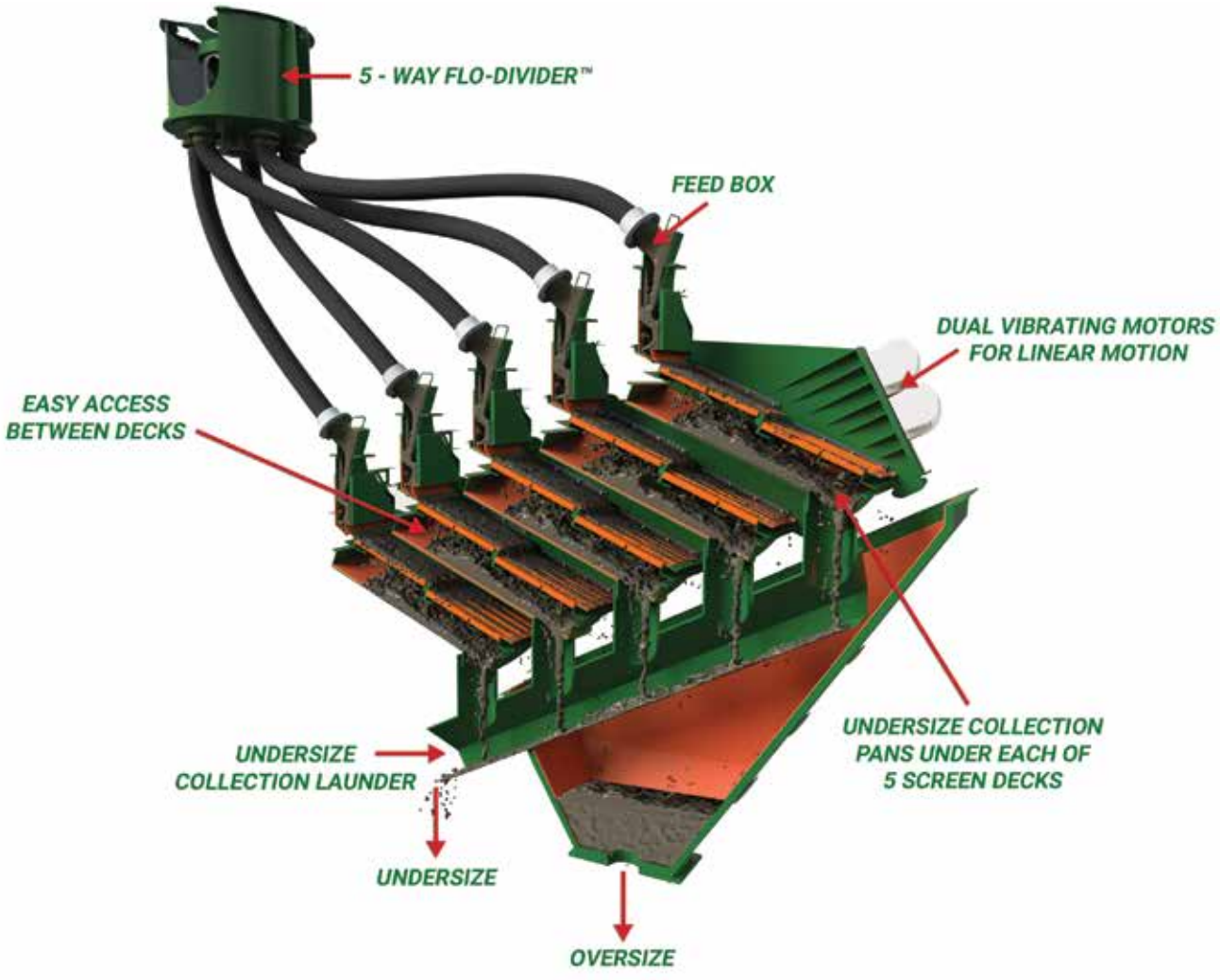
- Increase screening efficiency without increasing deck length
- Spray bars designed to dispense water into repulp wash troughs
- Added free water helps undersize material pass through screen panels
- Replaceable rubber repulp wash troughs

OPERATING PRINCIPLES

A custom-engineered single or multi-stage Flo-Divider system splits and directs the feed slurry equally to the Stack Sizer feeders, which then distribute flow to the individual screen decks. Ample space is provided between the screen decks to facilitate inspection during operation and permit convenient access for maintenance and replacement of screen panels.

Dual Super G or Super G2 vibratory motors provide the G-forces required to facilitate the screening process, while also imparting linear motion to the screen decks to convey material toward the discharge end of each deck.

Water and undersize particles passing through the screen fall into an undersize collection pan, which empties into the common undersize collection launder that carries the material to the undersize discharge flange. Large particles are conveyed along the top of the screen panels to the end where they fall off into the oversize hopper. Oversize material is then discharged through the flanged port on the underside of the hopper.



KEY BENEFITS

High Capacity, Small Footprint

With up to 5.3 m (17.4 ft) of screening width, the Stack Sizer offers high productivity, while saving space and reducing installation cost. High particle size separation efficiency increases product quality, reduces variability, and improves downstream processes. The Stack Sizer's linear motion results in superior screening efficiency and rapid oversize conveyance, and its low dynamic load minimizes structural support requirements. Various hopper options are available to suit various layout concerns, process considerations, and other operational specifications. Offering low operating and maintenance costs, convenient serviceability and durability, the Stack Sizer is built to last and backed by a worldwide support team available 24/7.

Repulp Spray System (Optional)

Replaceable rubber-lined repulp trough and spray bar positioned between each screen section enhances the screening process. Spray bars continually dispense water into the repulp trough to add free water to the screening operation. This free water facilitates separation of the undersize material (see figure 1), allowing it to pass through the screen surface unhindered, thereby increasing screening efficiency. By utilizing the transitional area between the two screen panels for the repulp process, screening efficiency is increased without increasing the length of the deck.

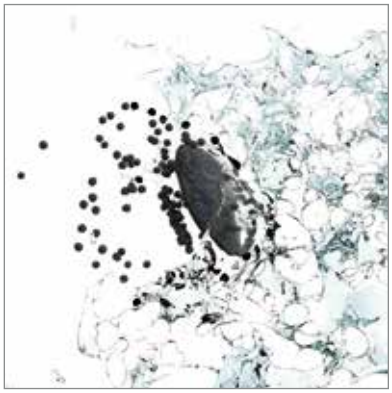
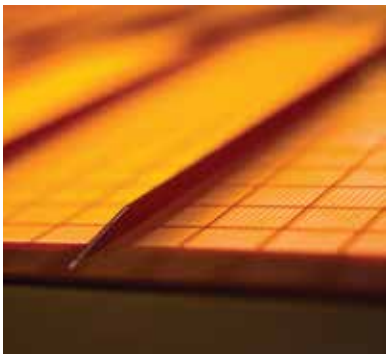


Figure 1



Polyweb Urethane Screens

Derrick Polyweb® urethane screens combine long life with high open area, capacity, and performance rivaling that of woven wire screens. Anti-blinding properties make it feasible to screen materials previously considered difficult or even impossible to screen. Derrick Polyweb screens typically last 6 to 12 months and are also lightweight, easy to install, and meet a wide variety of wet and dry applications. Currently, panel openings as fine as 325 mesh (45 microns) and open areas ranging from 35 to 45 percent are available. And design and manufacture of new molds, as well as urethane formulations, are ongoing processes. Derrick engineers work closely with each customer to develop the appropriate panel to address issues such as chemical compatibility and temperature.

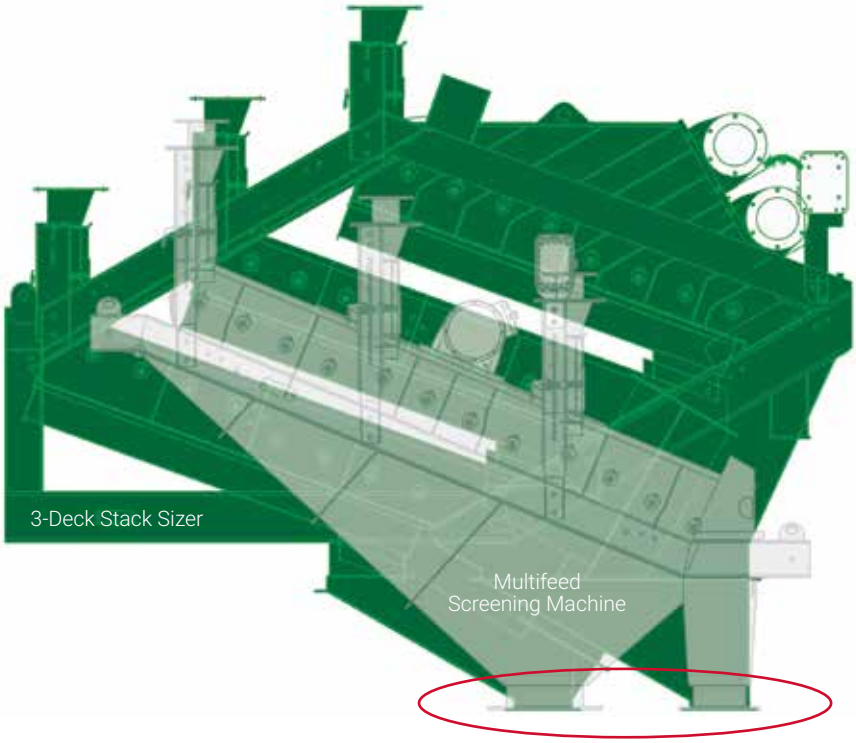
MULTIFEED SCREEN RETROFIT

3-DECK STACK SIZER DROP-IN REPLACEMENT

A 3-Deck Stack Sizer drop-in replacement is now available for current users of Derrick Multifeed Screens. With up to two times the capacity, the Stack Sizer Multifeed retrofit has a similar footprint and is designed with the same oversize and undersize discharge points, eliminating the need for any piping or launder changes. If your machine has reached the end of its useful life, this is the perfect upgrade and will allow you to take advantage of all the features and benefits of Stack Sizer technology with minimal installation costs. Older Multifeed installations typically used woven wire Sandwich Screen™ panels. Stack Sizers achieve more efficient separations using Derrick Polyweb panels with openings as fine as 38 microns. The characteristic long life of Polyweb surface technology also lowers operating costs. Finally, with respect to health and safety, sound levels produced by Stack Sizers are much lower than the older Multifeed machines.

Benefits of Stack Sizers compared to Multifeeds:

- Up to twice the capacity in the same footprint
- More efficient separations and lower operating costs with Polyweb urethane surfaces
- Dual vibrator linear motion provides improved oversize conveyance
- Significantly reduced sound levels



Utilize the same discharge points.

WEIGHTS & DIMENSIONS

EQUIPMENT	DIMENSIONS				
Model	**Width in (mm)**	**Length in (mm)**	**Height in (mm)**	**Maximum Dynamic Load lbs (kg)**	**Static Load/Weight lbs (kg)**
Single-Deck Stack Sizer	64-11/16 (1643)	100-1/2 (2553)	88-11/16 (2252)	448 (203) @ 50 Hz 298 (135) @ 60 Hz	2500 (1134)
Two-Deck Stack Sizer	64-11/16 (1643)	125-3/8 (3186)	130-3/8 (3312)	448 (203) @ 50 Hz 298 (135) @ 60 Hz	6000 (2722)
Three-Deck Stack Sizer	64-11/16 (1643)	151 (3834)	143-3/4 (3651)	448 (203) @ 50 Hz 298 (135) @ 60 Hz	7500 (3402)
Four-Deck Stack Sizer	64-11/16 (1643)	171-7/8 (4569)	158-1/2 (4033)	448 (203) @ 50 Hz 298 (135) @ 60 Hz	9000 (4082)
Five-Deck Stack Sizer	64-11/16 (1643)	202 (5131)	170-5/16 (4326)	448 (203) @ 50 Hz 298 (135) @ 60 Hz	11000 (4990)

The Derrick Family is a community comprised of thousands of individuals in countries around the globe. We share a collective interest in **Community Enrichment** through our avid support of industry associations and charitable organizations. Aware of our worldwide impact, we support the recovery of natural resources in the most energy-efficient manner, placing vital importance on **Global Sustainability**. Our **Award-Winning Service** department works around-the-clock to provide unparalleled support to customers around the world.

Our pioneering spirit is best demonstrated by our long-term commitment to **Continuous Innovation** which drives manufacturing of our **Leading-Edge Solutions**. Clients partner with us to overcome their most difficult fine-separation challenges and we deliver with our team of **World-Class Technologists**, many of whom have been with us for well over two decades. Our vertically integrated approach ensures product dependability and reinforces our **Quality Commitment**.

We are a **Global Family**® focused on **Pioneering Technology**®.

DERRICK | *GLOBAL FAMILY. PIONEERING TECHNOLOGY.®*

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