



# REPULP WET SIZING SCREEN

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**The Derrick® Repulp Wet Sizing Screen is the solution for difficult to screen materials that require the oversize product fraction to meet tight quality specifications.**

The Repulp machine's high speed, low amplitude motion coupled with its countercurrent spray wash water system effectively removes fine particles. It has a long history of producing high value products for numerous industrial mineral and metal industries. Numerous machines can be found worldwide screening silica sand, feldspar, coal, iron ore, gold ore and many other materials.

Three sizes of Repulp Wet Sizing Screens are available to meet the variable screening capacity needs of both the industrial mineral and precious metal industries. Abrasion resistant urethane coatings and sealed-for-life Derrick vibratory motors assure long-life, low maintenance operation. The machines' versatile design allows for the use of both traditional wire and Derrick anti-blinding, high open area Polyweb® urethane screen panels. The combination of these features ensure outstanding wet screening performance with minimal operator involvement.



# FEATURES & BENEFITS

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## 1. Health, Safety & Environment (HSE)

- Low sound production
- Easy screen inspection, removal and installation
- Light-weight screen panels for easy installation

## 2. Multiple Machine Sizes & Configurations

- Available in 3 ft x 8 ft (0.9 x 2.4 m), 4 ft x 10 ft (1.2 x 3.0 m) and 5 ft x 14 ft (1.5 x 4.3 m) sizes
- Single, double and triple undersize discharge hoppers available
- Multiple feed box styles available
- Provides wet screening capability for a wide range of mass and volumetric feed capacities
- Open design allows visual inspection of screen panels

## 3. Repulp Wash Water System

- Rubber lined troughs between each screen panel
- Wash water spray bars with multiple nozzle styles
- Enhances removal of fines from oversize fraction

## 4. Traditional Convex Screen Bed

- Allows use of both Derrick Polyweb urethane and traditional wire screen panels as fine as 325 mesh (45 microns)
- Fast, easy screen panel installation and tensioning with sealing, rapid change bolt assemblies

## 5. Derrick Integrated Vibratory Motors

- Zero maintenance
- Three options available – E3, Super G®, or W vibratory motors
- Powerful, quiet and low energy consumption
- Super G has greased-for-life bearings (Two year warranty)
- Linear motion mount available for use with Super G vibratory motors

## 6. Coatings & Linings

- Zinc Rich Enamel Primer with Enamel Top Coat exterior/interior coating for low abrasion applications
- 100% solids urethane coating for vibrating screen frame for high abrasion applications
- Bonded rubber, nitrile rubber and 100% solids urethane linings for feed boxes and discharge hoppers for high abrasion applications.

# KEY BENEFITS



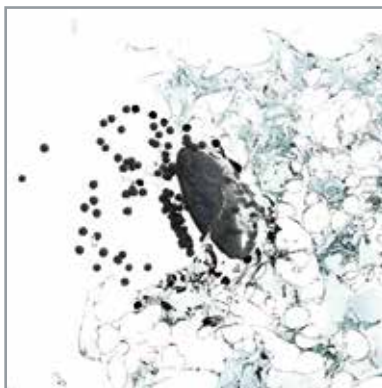
## Multiple Machine Sizes and Configurations

Repulp Wet Sizing machines are available with screening areas of 1.73 ft<sup>2</sup> (2.0 m<sup>2</sup>), 28.9 ft<sup>2</sup> (2.7 m<sup>2</sup>) and 57.6 ft<sup>2</sup> (5.4 m<sup>2</sup>) for a wide range of mass and volumetric feed rate requirements. Single, double and triple undersize discharge hopper assemblies are available which allow the machine to produce from two to four product fractions. Two feed box styles are available for use with this machine. The MS style feed box provides a free-draining design for batch operation or for slurry with solids that would settle if slurry flow was interrupted. The weir feed box provides a high volumetric capacity design for continuous flow operation with slurry whose solids are not prone to settling. Both feed boxes are designed to assure full-width dispersion of slurry onto the screening surface at a reduced linear velocity.



## Repulp Spray Wash Water System

The Derrick Repulp Wet Sizing machine includes rubber lined repulp troughs between each screen panel. Wash water is introduced into each trough countercurrent to the incoming slurry flow. This produces an area of turbulence within the trough that promotes the liberation of fines from coarse particles. The resultant diluted slurry exits the trough onto the next screen panel and the free liquid enhances the removal of fines through the screen openings. The spray water is directed into the troughs instead of directly onto the screen surface to prevent accelerated wear of the screen surface and to prevent forcing of oversize particles through the screen openings.



## Use of Derrick Polyweb Urethane and Traditional Wire Screen Panels

The convex vibrating screen frame design allows the use of both Derrick Polyweb urethane and traditional screen panels. Derrick Polyweb screen panels are anti-blinding, high open area surfaces that provide long life, high screening efficiency and minimal operator maintenance. With screen panel openings from 6.2 mm to 325 mesh (45 microns) and open area between 30 to 45 percent, Derrick Polyweb screen panels are suited for a wide variety of difficult screening applications. For applications not suited for Polyweb screen panels, traditional wire screen panels may be used. Traditional single cloth and Derrick Sandwich Screen™ panels are available with openings from 7/16 inch (11.2 mm) to 400 mesh (38 microns).



# AVAILABLE MODELS

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## **Model 36-90R-3**

- Nominal 17.3 ft<sup>2</sup> (1.6 m<sup>2</sup>) screening area
- Single E3 or Super G vibratory motor
- Single, double and triple unders discharge hoppers available
- MS style and weir style feed boxes available
- Linear motion motor mount available

## **Model 48-120R-4M**

- Nominal 28.9 ft<sup>2</sup> (2.7 m<sup>2</sup>) screening area
- Single E3 or Super G vibratory motor
- Single, double and triple unders discharge hoppers available
- MS style and weir style feed boxes available
- Linear motion motor mount available

## **Model 56-168R-4M**

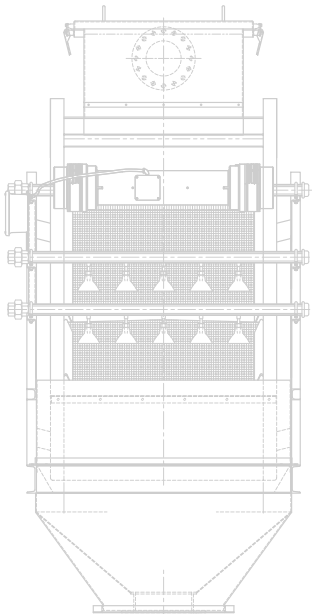
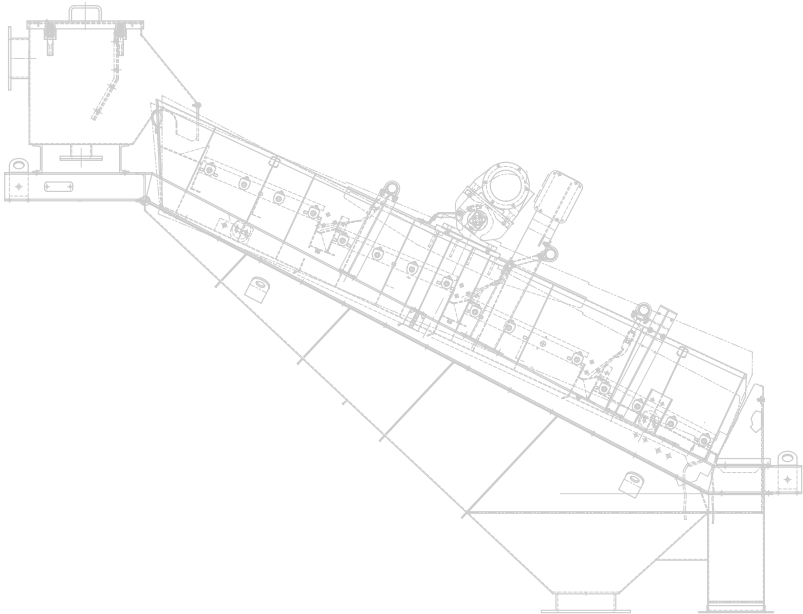
- Nominal 57.6 ft<sup>2</sup> (5.4 m<sup>2</sup>) screening area
- Single W vibratory motor
- Single and double unders discharge hoppers available
- MS style and weir style feed boxes available



# WEIGHTS & DIMENSIONS

EQUIPMENT	DIMENSIONS			
Model	Width in (mm)	Length in (mm)	Height in (mm)	Weight lbs (kg)
<b>36-90R-3</b>	60 (1524)	122 (3099)	119-3/8 (3032)	4000 (1814)
<b>48-120R-4M</b>	60 (1524)	149-15/16 (3809)	135-5/8 (3445)	4600 (2087)
<b>56-168R-4M</b>	81-5/8 (2073)	231-1/4 (5873)	180-1/8 (4581)	11000 (4990)

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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**®.



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