



LINEAR MOTION MACHINES

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Derrick® Linear Motion machines have a long history of performing in trash screening, dewatering, and wet scalping applications.

Derrick Linear Motion machines are designed for high volumetric capacity when fed slurry with a low percentage of oversize solids. This performance characteristic is achieved by the use of Derrick vibratory motors rotating in opposite directions creating high G-force, true linear motion causing forward, uphill conveyance of solids out of the fluid pool that forms near the feed end of the machine. Head or pressure from the liquid pool enhances the fluid throughput through the screen panels. The high G-force acceleration and uphill movement of the solids promotes the production of an oversize fraction that is consistently stackable and conveyable.

When fitted with high G-force Derrick vibratory motors and fed thickened slurry, typically from hydrocyclone underflow, the Linear Motion machines perform a dewatering function that enhances the removal of free liquid from the oversize solids.

Derrick HI-G® Dewatering machines utilize a combination of small diameter hydrocyclones mounted over a Linear Motion machine to recover and dewater solids as fine as 400 mesh (38 microns). Numerous HI-G Dewatering machines can be found operating in sand, aggregate, coal, concrete, graphite and other mining dewatering applications worldwide.

Four sizes of Linear Motion machines are available to meet the variable screening capacity needs of the industrial minerals, precious metals, ferrous metals, non-ferrous metals, fertilizers, industrial wastewater and municipal wastewater 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 and dewatering performance with minimal operator involvement.



2W56-168CP-4 (5 ft x 14 ft)

FEATURES & BENEFITS

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 8 ft (1.2 x 2.4 m),
 - 4 ft x 10 ft (1.2 x 3.0 m),
 - 5 ft x 14 ft (1.5 x 4.3 m),(all sizes w x L)
- Various feed box options available for all flow conditions
- Provides wet screening/dewatering capability for a wide range of mass and volumetric feed capacities
- Open design allows visual inspection of screen panels

3. Spray Wash Water System

- Wash water spray bars with multiple nozzle styles
- Enhances removal of fines from oversize fraction

4. Traditional Convex Screen Bed

- Allows use of Derrick Polyweb urethane screen panels and traditional wire screen panels, both as fine as 400 mesh (38 microns)
- Fast, easy screen panel installation and tensioning with sealing, rapid change bolt assemblies

5. Derrick Integrated Vibratory Motors

- Zero maintenance
- Low sound level
- Three options available – Super G®, Super G2®, or W vibratory motors
- Low dynamic loads
- Powerful, quiet and low energy consumption
- Super G vibratory motor has greased-for-life bearings
- Optional Super G2 or W vibratory motors have continuous recirculating internal oil lubrication system

6. Coatings & Linings

- Non-wear surfaces painted with zinc-rich primer and urethane enamel top coat
- Wear surfaces coated with 100% solids urethane or lined with suitable types of rubber or other elastomers for maximum abrasion resistance



HI-G® Dewatering Machine

KEY BENEFITS



Multiple Machine Sizes and Configurations

Derrick Linear Motion machines are available with screening areas of 17.3 ft² (1.6 m²), 21.7 ft² (2.0 m²), 28.9 ft² (2.7 m²) and 57.6 ft² (5.4 m²) for a wide range of mass and volumetric feed rate requirements. 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 low 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. All models incorporate low head room designs to minimize operating space.

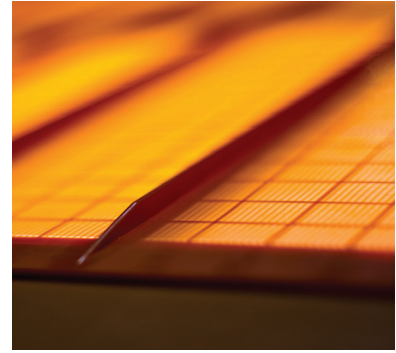


High G-Force, Linear Motion

Uniform straight-line solids conveyance is achieved through the true linear motion created by the opposing rotation of the Derrick vibratory motors. The Derrick vibratory motors create high G-force acceleration resulting in positive solids conveyance and dewatering when the vibrating screen frame is positioned from 5 degrees downhill to 5 degrees uphill. Discharging solids are typically stackable and conveyable.

Optional Spray Wash Water System

Wash water is introduced typically onto the last one or two screen panels to rinse the conveying oversize solids "filter cake". This promotes the liberation of fines from coarse particles. The resultant free liquid enhances the removal of fines 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 wire 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 55 percent, Derrick Polyweb screen panels are suited for a wide variety of trash or scalp screening applications. For dewatering applications, Derrick 500 micron or coarser Polyweb urethane screen panels are typically used. 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

3-Panel Models

Model 36-90W-3 • 3 ft (W) x 8 ft (L)

- Nominal 17.3 ft² (1.6 m²) screening area
- Single Super G vibratory motor with linear motion mount
- MS style and low weir style feed boxes available
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

Model 2SG48-90W-3 • 4 ft (W) x 8 ft (L)

- Nominal 21.7 ft² (2.0 m²) screening area
- Dual Super G vibratory motors
- MS style feeder
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

Model 2SG48-90CP-3 • 4 ft (W) x 8 ft (L)

- Nominal 21.7 ft² (2.0 m²) screening area
- Dual Super G vibratory motors
- Low weir style feeder
- Mechanical screen frame angle adjustment available
- Uses Polyweb urethane or wire screen panels



2SG48-90W-3 (4 ft x 8 ft)

4-Panel Models

Model 2SG48-120W-4 • 4 ft (W) x 10 ft (L)

- Nominal 28.9 ft² (2.7 m²) screening area
- Dual Super G vibratory motors
- MS style feeder
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

Model 2SG48-120CP-4 • 4 ft (W) x 10 ft (L)

- Nominal 28.9 ft² (2.7 m²) screening area
- Dual Super G vibratory motors
- Low weir style feeder
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

Model 2W56-168W-4 • 5 ft (W) x 14 ft (L)

- Nominal 57.6 ft² (5.4 m²) screening area
- Dual Super G vibratory motors
- MS style or dewatering feed boxes available
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

Model 2W56-168CP-4 • 5 ft (W) x 14 ft (L)

- Nominal 57.6 ft² (5.4 m²) screening area
- Dual Super G vibratory motors
- Low weir feed boxes
- Mechanical screen angle adjustment available
- Uses Polyweb urethane or wire screen panels

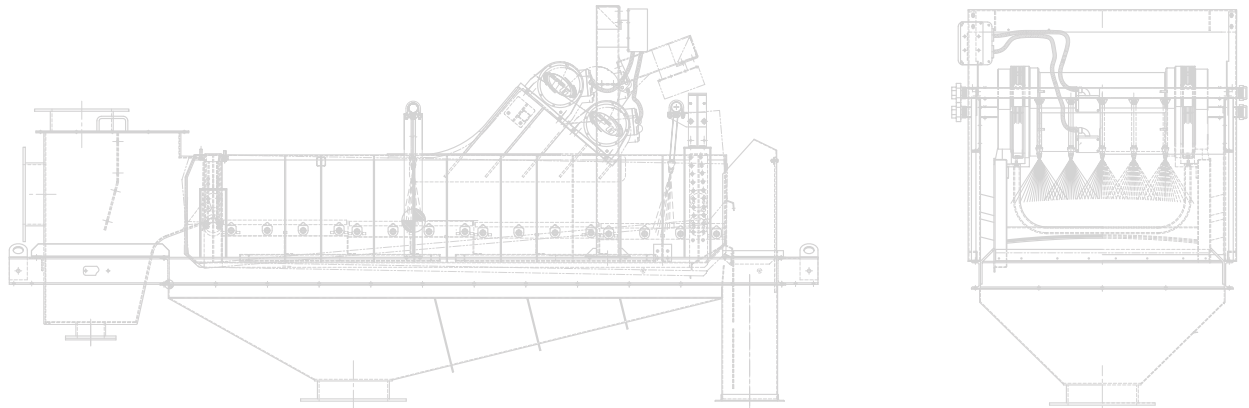


2SG48-120CP-4
Stainless Steel Option
(4 ft x 10 ft)

WEIGHTS & DIMENSIONS

EQUIPMENT			DIMENSIONS			
Model	Options	Screen Frame Angle Adjustment	Width in (mm)	Length in (mm)	Height in (mm)	Weight lbs (kg)
36-90W-3	MS Feeder	0°, +3°, +5°	55-1/4 (1403)	125 (3175)	68-7/16 (1738)	4000 (1814)
	Low Weir Feeder			148-5/16 (3767)	58 (1473)	
2SG48-90W-3	MS Feeder 10"	-1° to +5°	59-3/4 (1518)	127-3/16 (3231)	88 (2235)	3500 (1587)
2SG48-90CP-3	Low Weir Feeder	-1° to +5°	59-3/4 (1518)	151-15/16 (3859)	88 (2235)	4000 (1814)
2SG48-120W-4	MS Feeder 10"	-1° to +5°	59-3/4 (1518)	155-1/4 (3943)	88 (2235)	4100 (1860)
2SG48-120CP-4	Low Weir Feeder	-1° to +5°	59-3/4 (1518)	179-15/16 (4570)	88 (2235)	4600 (2087)
2W56-168W-4	Chute Feeder	-3° to +3°	83-1/2 (2121)	213-1/2 (5423)	103-7/16 (2627)	10000 (4536)
2W56-168CP-4	Low Weir Feeder	-3° to +3°	83-1/2 (2121)	239-1/4 (6077)	103-7/16 (2627)	10000 (4536)

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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**[®].



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