



SOLIDS CONTROL

FOR CIVIL CONSTRUCTION

LETTER FROM THE FAMILY

Founded by H. William Derrick Jr. in 1951, Derrick® Corporation was created to solve some of the most challenging mechanical separation needs of the Mining Industry. At the heart of our present-day offering resides the Integrated Vibratory Motor which was invented by our founder and gave life to an entire line of innovative separation technology. To this day, our pioneering spirit pulses through the organization and inspires development of our leading-edge solutions.

Over the years, we have experienced exponential growth, expanding from our Mining roots to Oil & Gas Drilling, Civil Construction, Industrial, and other challenging industries worldwide. Our robust installed base and expansive network of thousands of cohesive individuals are located across the globe.

Our success is fully dependent on people. Priority one is to serve our global families; our tenured employees, multi-national partners, and surrounding communities. Our unique, close-knit culture and shared, long-term outlook is not only paramount to our success, but to the success of all integral stakeholders.

We thank you for expressing interest in our organization and look forward to being of service to you in the future.



H. William Derrick Jr. (1917-1992)

TABLE OF CONTENTS

Introduction	4
Summary of Solids Control Equipment	8-9
Gumbo Removal	10
Shakers	
HI-Cap™	11
Hyperpool®	12-13
Flo-Line Cleaner™	14-15
Screen Technology	
Screen Panel Construction	16-17
Replacement Screen Panels for Non-Derrick Shakers	18-19
Mud Agitators and Centrifugal Pumps	22
Separation Systems & Plants	23
Vibratory Motors	24
Hydrocyclones	25
Centrifuges	26-27
Weights & Dimensions	30-31



Bradley Derrick
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THE GLOBAL LEADER IN SCREENING TECHNOLOGY

Serving the Drilling and Tunneling Industries

Derrick has offered premium slurry separation and desanding equipment to the worldwide Microtunneling, Horizontal Directional Drilling, Large Diameter Tunneling, Slurry Wall/Foundation Drilling, Water Well Drilling, and other civil construction industries for nearly 30 years. Throughout this time, Derrick has remained dedicated to complete in-house manufacturing of every machine, screen panel, and tank system. Each unit is created and assembled at Derrick's Buffalo, New York headquarters facility.

Equipment Makes the Difference

Drilling or tunneling performance is directly related to the overall cleaning ability of the separation equipment. Drilled solids remaining in the slurry have numerous adverse effects on the overall operation, significantly reducing its profitability. Consequently, selecting the proper separation equipment for your fleet is just as critical as choosing the correct drill or tunnel boring machine. Derrick answers this critical need with innovative, high performance solids control equipment proven time and time again to increase the rate of advance while reducing:

- Non-production time
- Hauling and disposal of solids-laden drilling fluid
- Cost of drilling fluid and chemicals
- Water usage and hauling
- Wear on downstream pumps, plumbing, and other equipment
- Environmental impact

Derrick Innovations

1951

First Derrick Four Bearing Integrated Vibratory Motor

1977

Sandwich (SWG) Screen® Panel and Sandwich Shaker

1984

Flo-Line Cleaner and Perforated Wear Plate (PWP™) Screen Panel

1989

Polyurethane Screen Panel

1990

HI-G® Dewatering Machine
(High G Linear Motion Shaker)

1995

Pyramid® (PMD®) Screen Panel

1997

Pyramid Plus™ (PMD+™) Screen Panel
and Super G® Integrated Vibratory Motor

2004

Super G2® Integrated Vibratory Motor

2006

API RP 13C Compliant Screens

2007

DE-7200™ VFD™ Centrifuge

2008

HI-Cap Shaker

2011

Hyperpool



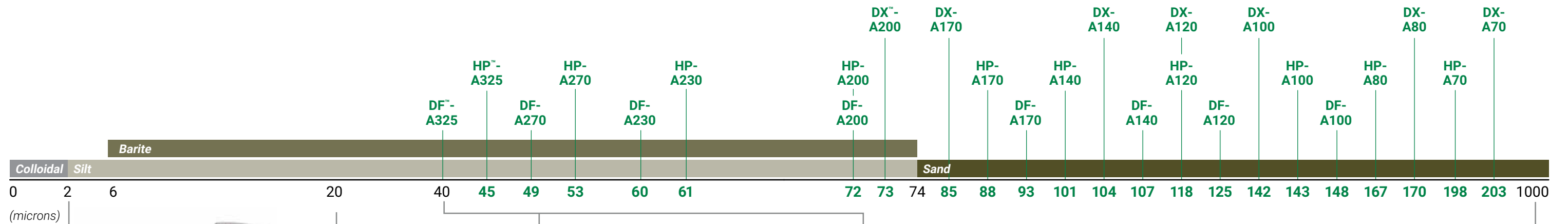


1955

When Derrick began operations in 1951, few could have anticipated its future exponential growth. Over the ensuing years, Derrick evolved from its humble beginnings into the renowned Global Family it is today. The company's sustained, profitable growth is most visibly noted in the expansion of its facilities, which have increased well over 360,000 sq. ft. (3340 sq. m.).

SUMMARY

OF SOLIDS CONTROL EQUIPMENT



DE-7200 CENTRIFUGE

Separation Particle Size:
>2 microns (unfloculated)
0 µm (floculated)

Primary Application:
Fine Silt and Clay Removal, and Dewatering



DESILTER

Separation Particle Size:
20-74 microns

Primary Application:
Silt Removal



DESANDER

Separation Particle Size:
40-100 microns

Primary Application:
Sand Removal



HYPERPOOL

Separation Particle Size:
>40 microns

Primary Application:
Gravel, Sand, Oversized Clay Chunks



FLO-LINE PRIMER 258™

Primary Application:
Gumbo Clay Removal



DE-1000™ CENTRIFUGE

Separation Particle Size:
>2 microns (unfloculated)
0 µm (floculated)

Primary Application:
Fine Silt and Clay Removal, and Dewatering



MUD CLEANER

Separation Particle Size:
>40 microns

Primary Application:
Desanding and Desilting with Dewatering Screen

GUMBO REMOVAL

Flo-Line Primer 258™

The Flo-Line Primer 258 utilizes a screen belt conveyor system to separate hydrated clays and large drilled cuttings from drilling fluid. This allows finer screens to be installed on the primary shakers, leading to lower dilution and operating costs. The Flo-Line Primer 258 is used in place of scalping shakers. The synthetic screen belt is available in 5, 10, and 20 square mesh weave.

With a 1.5 HP electric motor driving a variable speed gearbox, the Primer allows ample adjustment for changes to solids loading. Rotating nylon brushes located at the discard end cleans the screen belt to eliminate blinding issues associated with sticky clays. The feed box comes with built-in non-pressurized bypass. Access doors allow for easy clean out of the hopper, which simplifies screen belt replacement and allows inspection of the feed end roller. Optional features include custom hoods and custom hopper for oversize outlet.



Flo-Line Primer 258

Flo-Line Primer II™

The Flo-Line Primer II™ utilizes a removal cartridge screen belt conveyor system to separate hydrated clays and large drilled cuttings from drilling fluid. This allows finer screens to be installed on the primary shakers, leading to lower dilution and operating costs. The Primer II is used in place of scalping shakers. Two types of screen belts can be used on the Primer II, a stainless steel chain or a synthetic mesh screen belt. The opening sizes available for the chain are 1/2" x 1" and 1" x 1". The synthetic screen belt is available in 5, 10, and 20 square mesh weave.

With a 1.5 HP electric motor driving a variable speed gearbox, the Primer II allows ample adjustment for changes to solids loading. When the chain belt cartridge is utilized, the sprocket roller on the discard end cleans the openings in the chain to eliminate blinding issues associated with sticky clays. When the synthetic belt cartridge is utilized, rotating nylon brushes located at the discard end cleans the screen belt. The feed box has a built-in non-pressurized bypass. Access doors allow for easy clean out of the hopper, replacing the synthetic belt and the inspection of the feed end roller or sprockets. Optional features include vapor extraction hoods, custom hoods, and custom hopper for oversize outlet.



Flo-Line Primer II

HI-CAP™

The Derrick HI-Cap shaker offers over 57 sq. ft. of screen surface on a single unit which allows tunneling and other civil contractors unmatched shaker performance with minimal footprint. This is accomplished by utilizing our true, high G linear motion shaker design, coupled with Derrick's Polyweb® urethane screen surfaces. Its characteristic high open area allows for maximum fluid and solids handling capacity. Polyweb screens are virtually non-blinding and outlast comparable wire cloth surfaces many times over.



HI-Cap

FEATURES & BENEFITS

W Series Vibratory Motors

- Zero maintenance
- Powerful, quiet, dual vibratory motors apply high G performance
- Internal oil lubrication (One-year warranty)

Polyweb® Urethane Screens

- High open area for maximum flow capacity
- Unique non-blinding design for optimum efficiency and performance
- Long lasting – 10 to 15 times longer than woven wire panels

Optional Screen Angle Adjustment

- Adjustable screen angle while drilling from -3° to +3° for optimum capacity, screen life, and efficiency
- Manual single point ratcheting system allows one man operation and optimization

HYPERPOOL®

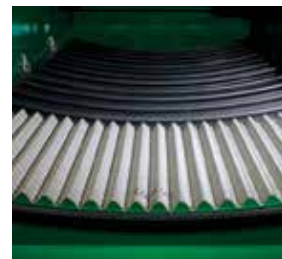
Backed by over 60 years of cost-effective solutions plus award-winning service, the Derrick Hyperpool shaker is the latest in a long line of products designed expressly to exceed the demanding needs of today's civil construction operations.

With its compact footprint, industry-leading processing capacity, solids bypass prevention, and low maintenance cost, the Hyperpool is well suited for all drilling applications where performance and modularity are required. The Hyperpool is designed to bring maximum value to the customer.

By combining multiple shakers on a single modular design, the Hyperpool dual and triple units offer increased capacity in a compact footprint. Optimum flexibility is provided by the box feeder/Flo-Divider, which permits distribution of feed slurry equally to each shaker screen frame. A bypass pipe with integrated butterfly valves connects all hopper discharge outlets.



4-Panel Hyperpool



Concave Screen Bed



Screen Compression Pins



Triple Hyperpool Unit with Integrated Flo-Divider™

FEATURES & BENEFITS

Health, Safety, & Environment (HSE)

- Easy screen inspection, removal, and installation
- Low sound production (74 +/- 4 dBA)
- Optional vapor extraction covers protect operating personnel and surrounding equipment from vapors emitted during the screening process (dependent on customer provided HVAC exhaust system)
- Optional self-locking splash covers provide clean operating environment
- Light-weight screen panels make for easy installation

Concave Screen Bed

- Eliminates bypass of solids under screen panels
- Fluid centering technology increases capacity up to 35% over competitive equipment
- Increased efficiency in a smaller footprint
- Compression fit bed material requires no hardware

Screen Compression System

- Less than 45-seconds per screen panel change
- Fast, secure panel retention
- Single-side operation, available in either left or right side

Pyramid® Screen Technology

- Pyramid and Pyramid Plus screens offer up to 45% more API RP 13C non-blanked screen area over conventional shakers delivering greater efficiency
- Compliant with industry-standard API RP 13C (ISO 13501)

Super G® Integrated Vibratory Motors

- Zero maintenance
- Powerful, quiet, dual vibratory motors apply high G performance
- Two options - Super G or Super G2
- Standard Super G has greased-for-life bearings (Two-year warranty)
- Optional Super G2 has continuous recirculating internal oil lubrication system (Three-year warranty)

Single Point Screen Angle Adjustment

- Adjustable screen angle while drilling from +2° to +8° for optimum capacity, screen life, and efficiency
- Manual single point system allows one man operation and optimization while drilling

Mud Cleaner

- Up to twenty 4" hydrocyclones
- Up to three 10" hydrocyclones
- Optional individual shutoff valve for each 4" hydrocyclone



Hyperpool Mud Cleaner

FLO-LINE CLEANER™

With over 15 years of installations, Derrick's Flo-Line Cleaner shakers embody an industry-proven balance of product dependability and enhanced performance. Designed with the customer in mind, the Flo-Line Cleaner offers user-friendly technology such as light-weight screens, adjustable screen angle while drilling, and single-side screen tensioning.

The Flo-Line Cleaner's modular design allows for versatile configuration as a durable flow line shaker, high performance mud cleaner, or even as a drying shaker.



FLC 503 Drying Shaker



FLC 424



FLC 504 Drying Shaker



FLC 2000



FLC 423

FEATURES & BENEFITS

Health, Safety, & Environment (HSE)

- Easy screen inspection, removal, and installation
- Low sound production (74 +/- 4 dBA)
- Light-weight screen panels make for easy installation

Pyramid Screen Technology

- Pyramid and Pyramid Plus screens offer more API RP 13C non-blanked screen area over conventional shakers, delivering greater efficiency
- Compliant with industry-standard API RP 13C (ISO 13501)

Polyweb Screen Technology

- Polyweb urethane screens offer up to three times more open area than conventional screen surfaces
- Anti-blinding properties make it feasible to screen materials previously considered difficult or even impossible to screen
- Compatible with the FLC 2000, FLC 423, and FLC 424

Super G Integrated Vibratory Motors

- Zero maintenance
- Powerful, quiet, dual vibratory motors apply high G performance
- Super G has greased-for-life bearings (Two-year warranty)

Single Point Screen Angle Adjustment

- Adjustable screen angle while drilling for optimum capacity, screen life, and efficiency
- Single point system allows one man operation and optimization while drilling

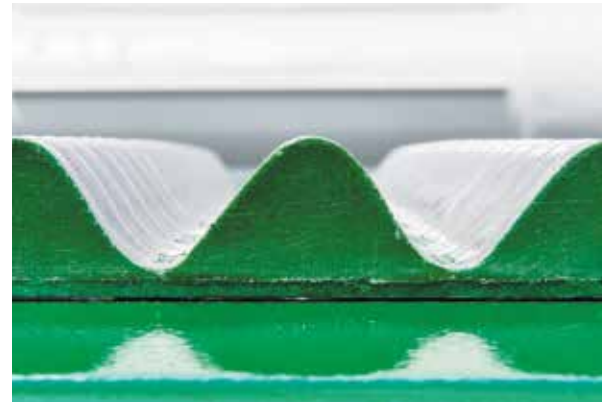
Mud Cleaner

- Up to twenty 4" hydrocyclones
- Up to three 10" hydrocyclones
- Optional individual shutoff valve for each 4" hydrocyclone

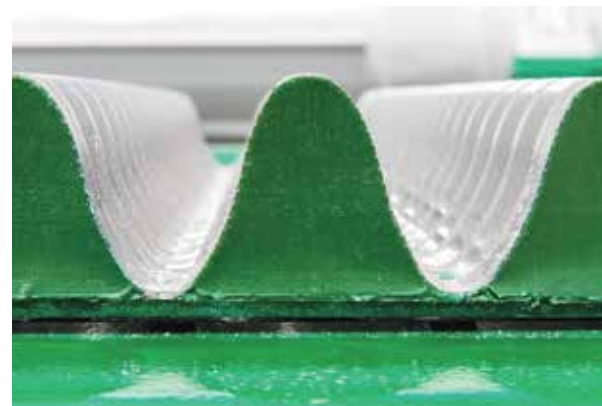
SCREEN PANEL CONSTRUCTION

Pyramid and Pyramid Plus™ Screens (PMD® and PMD+™)

Derrick has revolutionized screening technology with the patented Pyramid (PMD) and Pyramid Plus (PMD+) screens. These revolutionary three-dimensional screens offer the benefits of traditional flat multi-layered screens while adding a significant increase in usable screen area. The result is a screen that increases fluid handling capacity. Pyramid and Pyramid Plus screens provide an easy, cost effective increase in shaker performance. Designed with the latest technology, Pyramid screens allow rigs to screen finer earlier in the drilling process, thus significantly reducing mud and disposal costs. All Derrick screens are API RP 13C compliant.



PMD



PMD+

Exclusive Benefits

- Increased shaker capacity
- Enhanced permeability
- Makes fine separations
- Fits existing shakers
- Screen finer faster
- Drier cuttings

Screen Shape and Conductance

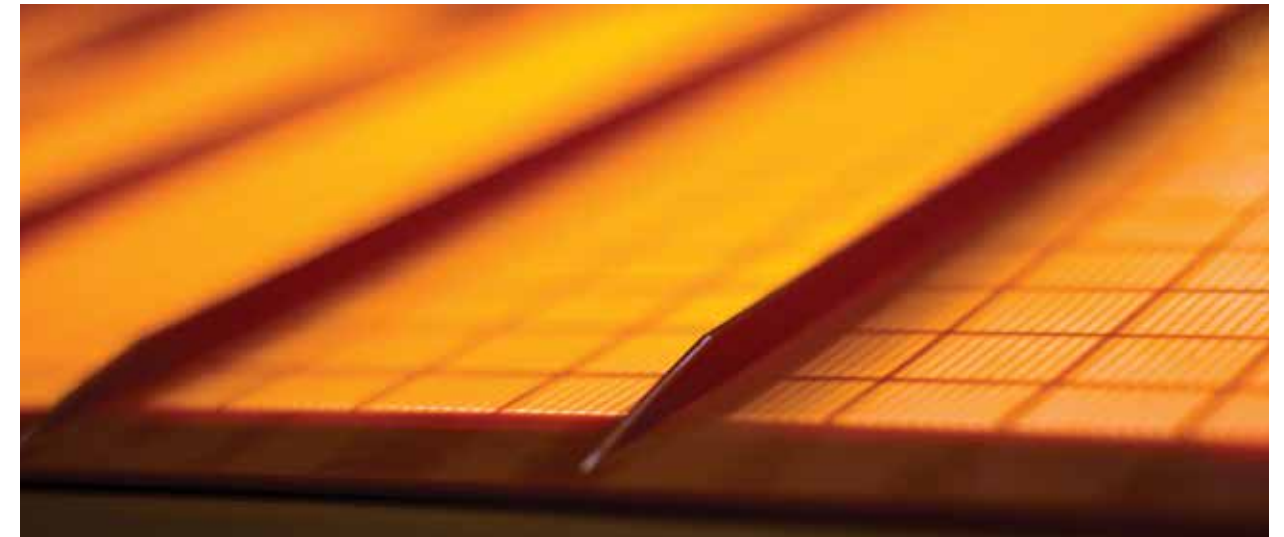
Gravity and vibration force the solids into the corrugated screen's troughs, thus allowing more fluid to pass through the top of the screen.



Corrugated Pyramid Screen
Enhanced Permeability



Conventional Flat Screen
Solids Impede Fluid Flow



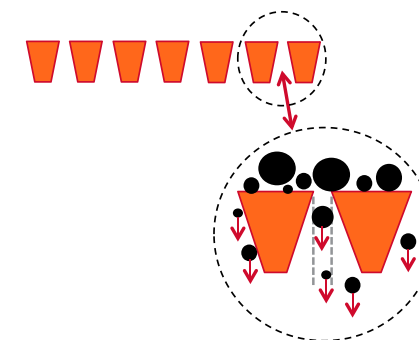
Polyweb Screens

Fine mesh Polyweb urethane screen surfaces provide up to three times more open area than conventional urethane screen surfaces. While all urethane screen panels are well known for their abrasion resistance, only Derrick's Polyweb urethane screens combine long life with high open area, capacity, and performance rivaling that of conventional woven wire screens. The anti-blinding properties of the screen now make it feasible to screen materials previously considered difficult or even impossible to screen. Currently, panel openings as fine as 325 mesh (45 microns) and open areas ranging from 35 to 45% are available.



Polyweb

Slotted Openings Prevent Blinding

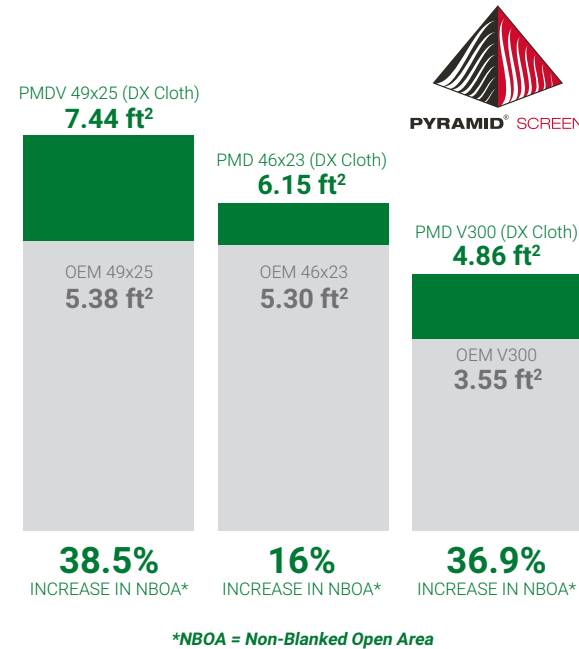


REPLACEMENT SCREEN PANELS

FOR NON-DERRICK SHAKERS

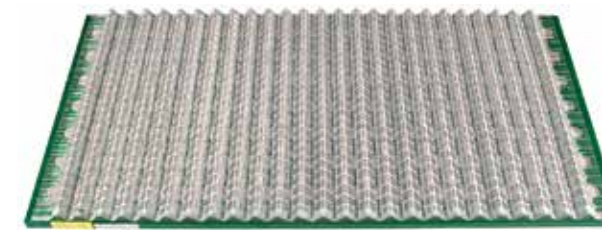
More Screen Area with Pyramid Screens

Derrick makes replacement screens to fit non-Derrick shale shakers. Continuing with its commitment to remain the leading technology provider of fine screens, Derrick's Research and Development department has developed a pretensioned screen for the BRANDT® COBRA™ Series, LCM-3D, and VSM 300™ shakers, as well as M-I SWACO® MONGOOSE® & MEERKAT® Series shakers. Utilizing Derrick's PMD and PWP technology, the 49x25, 46x23, and V300 replacement screens are API RP 13C (ISO 13501) compliant to ensure accurate cut point designation.



49x25 for BRANDT® COBRA™ Series and LCM-3D Shakers

The PMDV 49x25 is a superior pre-tensioned (VENOM™ style) replacement screen for the COBRA series and LCM-3D shale shakers. The exclusive Derrick Pyramid technology offers up to 38.5% greater non-blanked open area, increasing capacity of the existing shaker package. The PTCV 49x25 (PWP) flat screen is also available and comes with a stainless steel screen repair plug.



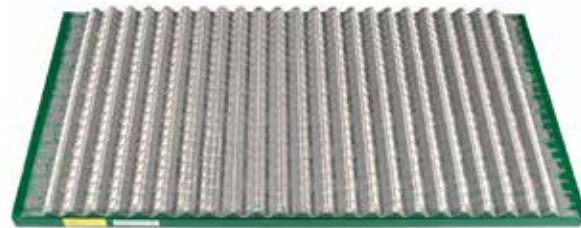
PMDV 49x25 Screen

API RP 13C (ISO 13501) Non-Blanked Open Screen Area Using DX Series Cloth

	PWP	PMD
COBRA	15.00 sq. ft.	22.32 sq. ft.
KING COBRA™	20.00 sq. ft.	29.76 sq. ft.
LCM-3D	20.00 sq. ft.	29.76 sq. ft.

46x23 for M-I SWACO® MONGOOSE® & MEERKAT® Series Shakers

The PMD 46x23 is a superior pre-tensioned replacement screen for MONGOOSE & MEERKAT series shale shakers. The exclusive Derrick Pyramid technology offers up to 16% greater non-blanked open area, increasing capacity of the existing shaker package. The PTM 46x23 (PWP) flat screen is also available.



PMD 46x23 Screen

API RP 13C (ISO 13501) Non-Blanked Open Screen Area Using DX Series Cloth

	PWP	PMD
MONGOOSE	17.60 sq. ft.	24.60 sq. ft.
MEERKAT	13.20 sq. ft.	18.45 sq. ft.

V300 for BRANDT VSM 300™ Shakers

A pre-tensioned Pyramid screen is available for the VSM 300 shale shakers. The V300 screens ensure longer screen life and accurate cut point designation in compliance with API RP 13C. The exclusive Derrick Pyramid technology offers up to 36.9% greater non-blanked open area, increasing capacity of the existing shaker package. The V300 (PWP) flat screen is also available.



V300 PMD Screen

API RP 13C (ISO 13501) Non-Blanked Open Screen Area Using DX Series Cloth

	PWP	PMD
VSM 300	13.16 sq. ft.	19.44 sq. ft.



**DERRICK SEPARATION
EQUIPMENT USED IN
CIVIL AND UNDERGROUND
CONSTRUCTION HAS PROVEN
TO REDUCE OPERATING AND
DISPOSAL COSTS, WHILE
INCREASING PRODUCTION.**



Derrick separation technology offers unmatched solids removal performance. Using this equipment and innovative screen technology, customers continuously recycle and re-use drilling fluid, while also controlling drilled solids and impact on the environment.

Further removal of ultra fine drilled solids is performed by the Derrick decanting centrifuge. When required, polymer dosing systems can be integrated with the centrifuge to remove solids down to 0µm to help facilitate mud disposal.

MUD AGITATORS

DE-AG™ Mud Agitator

Derrick mud agitators include an explosion-proof, "C" faced motor, reduction gearbox (helical-bevel gears for horizontal agitators or all helical gears for vertical units), impeller, and shaft with assembly bushings. Motors range from 5 to 30 HP and may be supplied in several power configurations.

Attaching the motor directly to the gearbox protects correct alignment that can increase bearing life and provides 95 percent efficiency in power transfer to the impeller. Using this superior design surpasses standard worm drive gear assemblies by 30 percent, allowing Derrick agitators to do the same work at far less horsepower. By unitizing the motor and gearbox, weight and space requirements are reduced. Horsepower, mechanical configuration, impeller diameter, and shaft length are customized to tank dimensions and maximum mud weights. Available horsepower ratings* are: 5, 7.5, 10, 15, 20, 25, and 30.

*Horsepower is de-rated for 50Hz power configuration.



CENTRIFUGAL PUMPS



Horizontal Package



Overhead Belt Drive Package

Centrifugal Pumps

Derrick offers a complete line of centrifugal pumps to accommodate a full variety of drilling applications. Sizes range from 3 x 2 to 8 x 6. Bare pumps, horizontal packages, and overhead belt drive configurations are available. Explosion proof electric motors are available up to 200 HP in 1200, 1800, or 3600 RPM.

Horizontal packages are skidded, as shown, and include the Derrick Premium 250 pump, explosion proof electric motor, and coupling with OSHA type guard. Starters are optional.

Overhead belt drive packages are skidded, as shown, and include the Derrick Premium 250 pump, an explosion proof electric motor, belts and sheaves, and OSHA type belt guard. Starters are optional.

SEPARATION SYSTEMS & PLANTS

Mini Separation System

The Mini Separation System offers ultra-fine separation in a very small footprint. Coarse mesh scalping is achieved by the lower deck of the Derrick FLC 423 linear motion shaker, which is outfitted with long life, high open area, fine Polyweb urethane screen panels. Screen underflow is then processed through ten 4" Derrick desilting cones. Cone underflow is routed onto the top deck which is typically outfitted with fine Pyramid screens with openings in the API 140 to 200 range. Cleaned fluid is then returned to the excavation.



12-MSS (Discharge)



12-MSS (Feed Side)

Modular Slurry Separation Plant

Utilizing Platform Strategy, Derrick's versatile Modular Slurry Separation Plant can be used for various civil construction applications such as horizontal drilling, microtunneling, and slurry wall milling. The innovative design provides optimal flexibility for a wide range of ground conditions. The plant integrates a three-chambered modular base tank with electrical control panel, one or two centrifugal pumps to feed the hydrocyclones, and shaker platform(s). The base tank can accommodate up to three Derrick equipment platforms for multiple slurry separation equipment combinations to meet the end-user requirements.



24-MSSP

VIBRATORY MOTORS

Proven to dramatically increase liquid/solids separation, the Super G series vibratory motors produce superior conveyance due to their high G characteristics. Increased fluid-handling capacities using fewer shakers is only part of the reason for their success on drilling rigs. Screening finer, earlier in the drilling process, significantly reduces mud and disposal costs. The Super G series vibratory motors are built with Derrick's superior electrical components, which are renowned in the industry for durability. High performance and exceptional durability make the Super G series vibratory motors an asset to any drilling program.



Super G3™ and Super G2® Integrated Vibratory Motors

Both the Super G3™ and Super G2 vibratory motors feature a patented continuous, internal recirculation lubrication system that provides long life, reduced repair costs, and robust maintenance free operation. In addition to greatly extending the life of the vibratory motor, the hydrodynamic cushioning effect on bearing surfaces created by this unique lubrication system reduces friction, wear, heat, and sound (measured at 74 +/- 4 dBA). Sealed, continuous recirculation of lubricating oil maintains a fresh film of oil on all bearing surfaces at all times and prevents entry of contaminants. Both the Super G3 and Super G2 vibratory motors carry a three-year warranty.



Super G2 Vibratory Motor

Super G Integrated Vibratory Motors

Featuring permanently lubricated bearings that eliminate the need for a remote lubrication system, Derrick Super G vibratory motors reduce both repair costs and maintenance requirements. These grease-filled bearings also result in significantly lower sound output with a measured level of 74 +/- 4 dBA. Super G vibratory motors carry a two-year warranty.



Super G Vibratory Motor

HYDROCYCLONES

10 Inch Inline Desanders

Derrick desanders make separations between 40 and 100 microns and offer the flexibility of mounting either one, two, or three 10" desander cones over a cone underflow pan. The underflow can be discarded or directed onto a vibrating screen for further processing. Derrick desanders are also available in vertical or inclined manifold stand-alone models, or for inclined mounting on Derrick shakers.



Inline Vertical Desander

4 Inch Round or Inline Desilters

The Derrick round and inline desilters are designed to remove silt-sized solids (20 to 74 microns) from drilling fluids. Derrick's round desilters are simple to operate and easy to maintain. Optional shutoff valves on each round desilter cone inlet permit individual cone removal and inspection without interrupting operation of the desilter. The Derrick inline desilter is designed for use in areas that cannot accommodate the spatial requirements for the premium round desilter configuration. Both the round and inline desilters are available in a variety of sizes up to 20 cone models. Available cone quantity dependent on machine type.



Inline Incline Desander

Derrick's polyurethane hydrocyclone offers a high volume 4" cone, while providing contractors an economical replacement for less efficient older equipment. Derrick's unique uni-body construction eliminates excess parts and seams where excessive wear can occur. Derrick's 4" desilter cones are available with ceramic inserts for extreme service.



Inline Vertical Desilter



Round Desilter

CENTRIFUGES

DE-7200™ VFD™

The DE-7200 VFD (Variable Frequency Drive) centrifuge offers a robust mechanical design coupled with advanced control technology, enabling it to provide consistent and effective solids control in a wide range of drilling fluid types and drilling conditions. The stainless steel bowl and conveyor with hardened and replaceable wear parts reduce the total ownership cost and maintenance downtime. With a maximum of 2750 G's at 3000 RPM bowl speed the DE-7200 separates fine solids from drilling fluids, improving drilling fluid rheology and thus drilling performance. The DE-7200 features a 60 HP conveyor drive motor with 70,806 in-lbs gearbox torque, allowing it to maintain high feed rates while processing drilling fluids with high solids content and high mud weights. With a 21.4" x 72" bowl capable of processing high volumetric flow rates and removing large quantities of solids, the DE-7200 has the capacity needed for effective solids control on deep wells with high circulating rates and fast rates of penetration. Automatic load sensing and feed pump control dynamically adjusts the pump rate to maintain bowl or conveyor torque set point, enabling automated processing optimization and preventing rotating assembly overload. The DE-7200 is available with remote monitor and control capability, allowing the operator to be located outside of hazardous working environments and enabling offsite technicians to perform process optimization, quality control, and troubleshooting.



DE-7200 VFD

DE-1000™ LP VFD Dual Voltage

Combining the field-proven durability of the DE-1000™ series rotating assembly with the same state-of-the-art control system as on the DE-7200, the DE-1000 LP (Low Profile) VFD is Derrick's premium small bowl centrifuge offering. With PLC-controlled variable frequency drives controlling bowl and conveyor speed as well as feed rate, the DE-1000 LP VFD can be rapidly optimized for most efficient solids control in a wide range of drilling applications. The automated control system adjusts feed rate based on centrifuge loading, ensuring the maximum solids removal without operator intervention. The DE-1000 VFD may also be controlled and monitored from a safe location offsite, protecting personnel from hazardous conditions onsite and allowing remotely located experts to assist in operation and maintenance. The unit features 24,782 in-lbs maximum conveyor torque with a 52:1 gearbox and a 20 HP motor driving the conveyor, enabling it to remove a large volume of solids (same as during barite recovery on a high mud weight system). Reaching a maximum of 2575 G's at 3600 RPM bowl speed, the DE-1000 VFD removes fine solids and improves drilling fluid quality. The Low Profile (LP) is a modular design, allowing the control cabinet to be positioned separately from the centrifuge for the safety of equipment operators and increased flexibility for job site installations. The dual voltage electrical configuration (460V/3phase and 480V/3phase at 60Hz or 380V/3phase and 400V/3phase at 50Hz) allows the unit to operate around the world without changing electrical components or motors.



DE-1000 LP VFD
Dual Voltage

DE-1000 FHD™ Dual Voltage

The DE-1000 FHD™ (Full Hydraulic Drive) is engineered and manufactured for performance, flexibility, reliability, and minimal maintenance. The full hydraulic drive control enables independent adjustment of the bowl speed and conveyor differential speed during processing, allowing the operator to adjust the centrifuge parameters for efficient solids removal as feed properties change throughout the drilling process. With maximum centrifugal acceleration of 2300 G's at 3400 RPM bowl speed and conveyor differential speed adjustment from 3-90 RPM, the DE-1000 FHD is effective in a wide range of applications from barite recovery on 20 PPG drilling fluid to separation of flocculated ultrafine solids during dewatering. The DE-1000 FHD has two unique features that protect the rotating assembly from overload: feed pump cycling and conveyor boost system. During feed pump cycling, the centrifuge electrical system automatically shuts down the feed pump if the conveyor becomes overburdened. Should feed pump shut down fail to reduce load on the conveyor, the conveyor boost system automatically increases the conveyor differential speed to clear solids from the bowl. The stainless steel rotating assembly with hardened, replaceable wear parts extends the operating life of the DE-1000 FHD, minimizing repair cost and maintenance downtime. The dual voltage electrical configuration (440V/3phase and 460V/3phase at 60Hz or 380V/3phase and 415V/3phase at 50Hz) allows the unit to operate around the world without changing electrical components or motors.



DE-1000 FHD
Dual Voltage

DE-1000 LP GBD

The DE-1000 LP (Low Profile) GBD (Gearbox Drive) offers consistent performance, high reliability, and minimal maintenance at low cost. The gearbox drive system with onboard operator controls ensures ease of use and is best suited for applications with consistent feed properties. Several drive motor sheaves are available to permit bowl speed adjustment up to 4000 RPM at 60Hz or up to 3250 RPM at 50Hz, enabling effective solids control for various drilling fluid properties and drilling conditions. This version of centrifuge can attain up to 3180 G's. With two available gearbox ratios of 52:1 and 125:1, the gearbox may be changed to provide the best conveyor differential speed for the application. An overload clutch protects the gearbox, preventing costly damage to mechanical parts in event of rotating assembly overload. During startup, the 50 HP bowl motor is protected from damage by a soft start fluid coupling. To prevent equipment damage and protect personnel, the DE-1000 LP GBD has automatic safety shutdown for high vibration, centrifuge motor overload, or feed pump motor overload. Like the other DE-1000 series centrifuges, the DE-1000 LP GBD has excellent durability and low repair costs with a stainless steel rotating assembly and hardened, replaceable wear parts. The low profile design is compact and lightweight, reducing transportation and shipping costs, and facilitating installation on smaller rigs and drilling pads.



DE-1000
LP GBD



Award-Winning Service

Service engineers assist customers with installation, operation, and maintenance concerns, frequently solving problems over the phone. But when necessary, a team responds directly to the customer site to correct a problem. Concise, detailed, fully illustrated, easy-to-understand technical documentation is used by customers and our Service and Support team. Most questions can be answered in the pages of these comprehensive documents that are provided to customers in both printed and electronic formats. Information includes instructions for installing, operating, servicing, and maintaining Derrick equipment.

Offering around-the-clock field support, the Derrick Service department is dedicated to responding rapidly and providing efficient service and support. Close attention to customer needs is provided by thoroughly trained technical service, support experts, and Derrick's "always available" attitude.



WEIGHTS & DIMENSIONS

Flo-Line Primers

EQUIPMENT		DIMENSIONS			
Model	Options	Width in (mm)	Length in (mm)	Height in (mm)	Weight lbs (kg)
Flo-Line Primer 258	Standard	53-3/4 (1365)	159 (4039)	51 (1295)	3100 (1406)
	VE (Vapor Extraction)		159-1/8 (4042)	58-5/16 (1480)	3300 (1497)
Flo-Line Primer II	Standard		110 (2794)	46-1/4 (1175)	2700 (1225)
	VE (Vapor Extraction)		110-1/4 (2800)	54 (1372)	2800 (1270)

Shakers

EQUIPMENT		DIMENSIONS				
Model	Options	Width in (mm)	Length in (mm)	Height in (mm)	Weight lbs (kg)	
HI-Cap	Box Feeder	88-15/16 (2259)	213-1/2 (5423)	107-3/4 (2737)	10000 (4536)	
	Weir Feeder		239-1/4 (6077)			
Hyperpool	Box Feeder	None	71-1/2 (1817)	101-3/4 (2585)	63-13/16 (1620)	3600 (1633)
			3/20 Cones	80 (2032)	123-13/16 (3145)	109 (2769)
	Weir Feeder	None	71-1/2 (1817)	118-3/16 (3002)	63-13/16 (1620)	3700 (1678)
			3/20 Cones	80 (2032)	123-13/16 (3145)	109 (2769)
	Low Weir Feeder		71-1/2 (1817)	118-1/8 (3000)	63-13/16 (1620)	3700 (1678)
						9300 (4218)
Dual Hyperpool	Integrated Flow Divider	None	161-1/8 (4092)	118-7/16 (3008)	109 (2769)	13000 (5897)
			3/20 Cones	161-15/16 (4113)		
Triple Hyperpool	Integrated Flow Divider	None	239-3/4 (6090)	118-7/16 (3008)	63-13/16 (1620)	13300 (6033)
			3/20 Cones	242-7/16 (6158)	124-3/16 (3154)	109 (2769)
Flo-Line Cleaner 503	Box Feeder	None	68-3/4 (1746)	102 (2591)	73-3/8 (1864)	3400 (1542)
			3/20 Cones	80 (2032)	125 (3175)	109 (2769)
	Weir Feeder	None	64-3/4 (1645)	118 (2997)	73-3/8 (1864)	3600 (1633)
			3/20 Cones	80 (2032)	126-5/16 (3208)	109 (2769)
	Low Weir Feeder		64-3/4 (1645)	121-3/16 (3078)	73-3/8 (1864)	3600 (1633)
Flo-Line Cleaner 504	Box Feeder	None	68-7/8 (1749)	129-7/16 (3288)	82-1/2 (2096)	3800 (1724)
			3/20 Cones	80 (2032)	144-7/16 (3669)	109 (2769)
	Weir Feeder	None	64-3/4 (1645)	145-7/16 (3694)	82-1/2 (2096)	4000 (1814)
			3/20 Cones		80 (2032)	109 (2769)
	Low Weir Feeder		64-3/4 (1645)		77-5/16 (1964)	4100 (1860)
	Flo-Line Cleaner 2000 3-Panel	Box Feeder	None	74-3/16 (1884)	95-9/16 (2427)	63-3/16 (1605)
2/16 Cones				80 (2032)	125 (3175)	104-1/8 (2645)
20 - 4" Cones			114-13/16 (2917)		98-1/4 (2495)	6400 (2903)
Weir Feeder	None	74-3/16 (1884)	121-1/16 (3075)	63-3/16 (1605)	4300 (1950)	
			123-1/16 (3126)	74-5/8 (1895)	5300 (2404)	
Flo-Line Cleaner 2000 4-Panel	Box Feeder	None	80 (2032)	142-13/16 (3627)	106-3/8 (2702)	9000 (4082)
				20 - 4" Cones		100-1/2 (2553)
Weir Feeder	None	74-3/16 (1884)	149-1/16 (3786)	74-5/8 (1895)	5300 (2404)	
Flo-Line Cleaner 423	Box Feeder	None	67-1/4 (1708)	96 (2438)	76 (1931)	3800 (1724)
Flo-Line Cleaner 424					124-1/8 (3153)	76-7/16 (1942)

WEIGHTS & DIMENSIONS

Hydrocyclones

EQUIPMENT		DIMENSIONS									
Model	Options	Width in (mm)	Length in (mm)	Height in (mm)	GPM (LPM) at 75 ft. head	Weight lbs (kg)					
Desilters	Round	65 (1651)	69 (1753)	63-1/8 (1603)	700 (2650)	2300 (1043)					
					840 (3180)	2400 (1089)					
		78-9/16 (1995)	80 (2032)	67-1/2 (1715)	1120 (4240)	2500 (1134)					
					1400 (5300)	2700 (1225)					
	Inline/Vertical	32 (813)	70 (1778)	55-5/16 (1405)	700 (2650)	1000 (454)					
					840 (3180)	1100 (499)					
		86 (2184)	59-7/16 (1510)	63-3/8 (1610)	1120 (4240)	1200 (544)					
					102 (2591)	1400 (5300)	1600 (726)				
Inline/Vertical	74-1/4 (1886)	39 (991)	89-7/8 (2283)	1000 (3785)	1400 (635)						
				1500 (5678)	1500 (680)						
Desanders	Incline	62 (1575)	71-3/4 (1822)	39-7/8 (1013)	1000 (3785)	2000 (907)					
							68-5/16 (1735)	47-1/2 (1207)			
					71-3/4 (1822)	39-7/8 (1013)	68-5/16 (1735)	47-1/2 (1207)	51-1/16 (1297)	1500 (5678)	2100 (953)
	3 Cones / 30°	3 Cones / 35°	68-5/16 (1735)	51-1/16 (1297)							

Centrifuges

EQUIPMENT		DIMENSIONS			
Model	Options	Width in (mm)	Length in (mm)	Height in (mm)	Weight lbs (kg)
DE-7200 VFD (Variable Frequency Drive)	Centrifuge	81-5/16 (2065)	155-13/16 (3958)	64-5/8 (1641)*	14000 (6351)
	Electrical Control Cabinet	31-9/16 (802)	69-7/16 (1763)	79-5/16 (2015)	2010 (912)
DE-1000 LP VFD (Variable Frequency Drive)	Low Profile Centrifuge/Cabinet	66 (1676)*	159-13/16 (4059)	67 (1702)*	7300 (3311)
	Electrical Control Cabinet	55-3/8 (1407)	41 (1041)	50-15/16 (1294)	1500 (680)
DE-1000 FHD (Full Hydraulic Drive)	Dual Voltage Centrifuge	83-1/2 (2121)*	115 (2921)	70-9/16 (1792)*	9000 (4082)
DE-1000 LP GBD (Gearbox Drive)	Low Profile Centrifuge	69-15/16 (1776)*	110 (2794)	66-1/8 (1679)*	5200 (2359)

* Centrifuge Bowl Cover Open

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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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