MI SWACO
A Schlumberger Company

Oilfield Screens

Setting the bar in Solids Control

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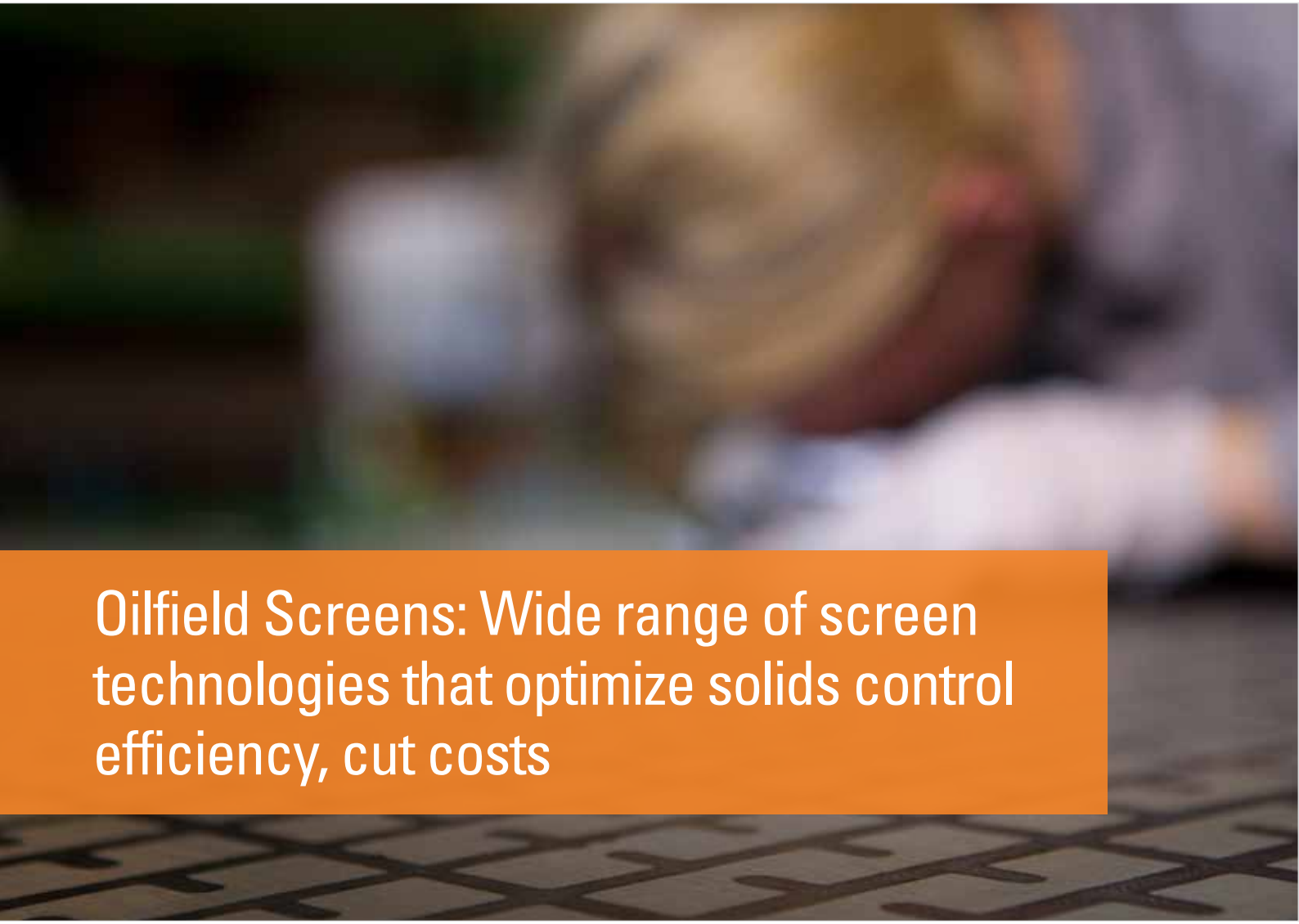


Oilfield Screens: Wide range of screen technologies that optimize solids control efficiency, cut costs

With more than 30 years experience in solids control and drilling waste management, it is only natural that M-I SWACO would introduce our patented composite frame technology to the industry. DURAFLO† composite screens were developed by United Wire/M-I SWACO as an alternative to metal framed shale shaker screens being offered as an industry standard.

Composite screens consist generally of a glass fiber filled, polypropylene frame in addition to a high strength steel internal reinforcing structure. Using a patented process, one to three layers of stainless steel wire cloth are melted directly into the surface of the polymeric frame. Both the composite design and production process are M-I SWACO patented. This exclusive technology has been used successfully in the industry for both OEM and replacement screens and has established proven and respected prominence.

Composite OEM and Replacement Screens

Features

- OEM composite screens for M-I SWACO BEM† Series, MONGOOSE† Series , MEERKAT PT † and MD† Series Shale Shakers
- Replacement composite screens available for NOV /Brandt, Derrick and Axiom brand shakers
- Patented, composite frame design
- Smaller, more numerous panels
- Increased usable area vs. traditional screens
- Weighs on average 40% less than traditional metal back screens for higher shaker G-forces
- Higher throughput capacity
- Significantly longer operational life
- Flat panel for efficient solids conveyance and transport mechanisms
- Exclusive SNAP-LOK† plug-repair system

Benefits

- Screen resists corrosion and delamination that can shorten metal-frame screen life
- Consistent manufacturing, rugged construction
- Increased operational life
- Lower screen replacement costs
- Quick and easy to repair
- Less downtime
- Improved solids control efficiency
- Enhanced QHSE profile

M-I SWACO, a Schlumberger company, offers a comprehensive suite of OEM and replacement shaker screens that combine multiple mesh sizes with our patented composite frame technology to provide higher throughput and longer life. Available for M-I SWACO, Derrick, Brandt/NOV, and other shaker brands, the exclusive line of long-lasting composite screens optimizes solids control efficiency to reduce costs and waste volumes, regardless of the targeted formations and drilling applications.

M-I SWACO composite screen technology effectively eliminates trade-offs that often come with selecting the most efficient mesh for target applications, only to have it mounted on a substandard frame. The end result is shorter life, higher replacement costs and reduced capacity.

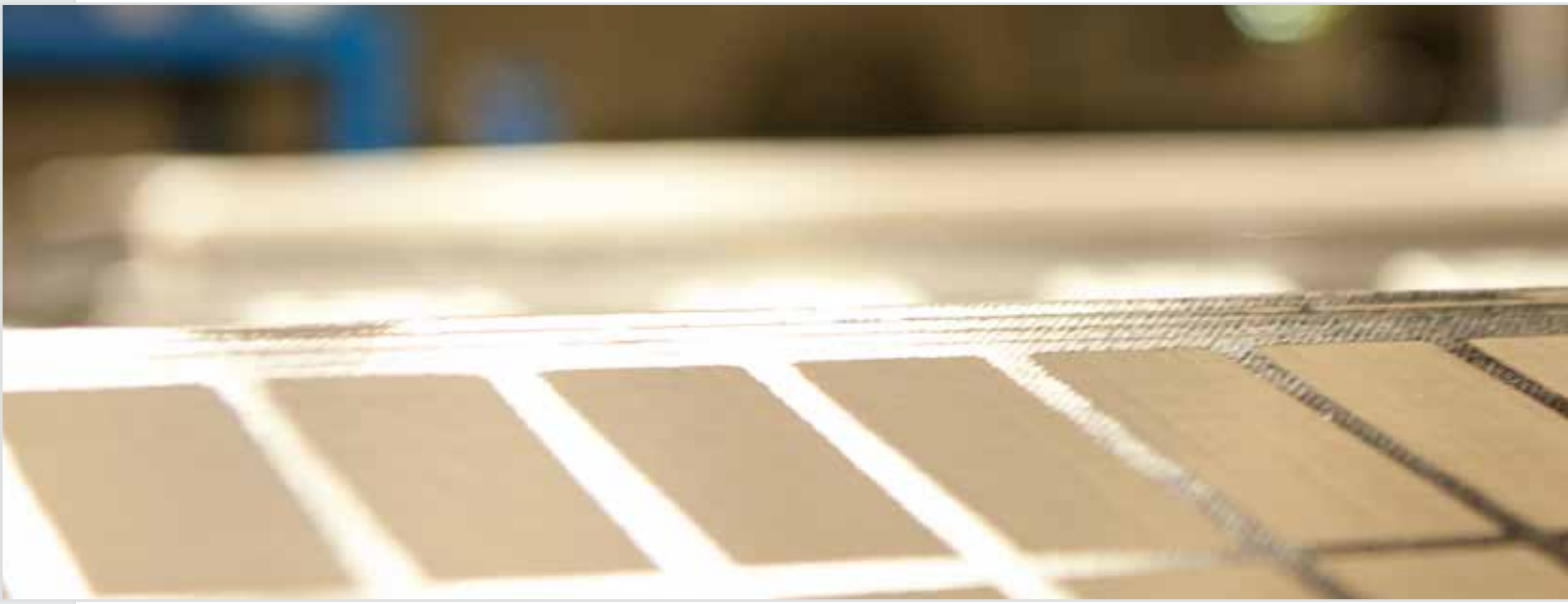
Our ultra-durable, API-compliant composite screens are available in a broad range of mesh grades, including the patented XR† mesh, which can be matched to meet the distinct solids control challenges of different formation types.

By combining a wide variety of mesh sizes with composite screen technology, M-I SWACO provides operators the flexibility of selecting the most cost-effective mesh for the specific application without having to compromise screen life and higher throughput capacity. Precisely matching the mesh to the formation enhances separation, reducing both the drilling waste volumes and costs.

Maintaining drilling fluids quality is critical to drilling performance and to safeguarding well integrity and productivity. The capacity and separation efficiency of the solids control equipment is critical to this process.

In addition to drilling performance and quality, operators and drilling contractors are also under increased pressure to reduce costs and improve profitability, in a market with increasing fluids costs, and waste disposal restrictions and costs. These demands intensify with offshore operations. Screens are highly-consumable so extending screen life can with the use of composite technology proves to be significant in reducing costs and improving overall profitability.

DURAFLO Composite OEM, replacement screens



The DURAFLO line of composite OEM and replacement screens is regarded as step-change advancement in shaker screen technology.

The extremely durable DURAFLO composite screens evolved from M-I SWACO HI-FLO† screen technology that was the first to use a grid made from a composite of high-strength plastic and glass, reinforced with high-tensile-strength steel rods. DURAFLO composite screens represent the next generation, delivering even longer screen life and greater ease in making repairs than either HI-FLO screens or conventional metal-frame screens.

In addition, OEM and replacement DURAFLO composite screens are available with HC†, XL† and XR Mesh, providing operators sizing flexibility along with a longer lasting, higher capacity and overall more cost effective screen than metal-framed and other conventional products.

DURAFLO composite screen technology effectively eliminates the inherent performance-limiting problems of conventional metal frames, including rusting, delamination, heavier and reduced processing area. The functional life of DURAFLO composite screens have been shown to be as much as twice that of those mounted on metal frames with appreciably higher throughput capacity.

The technology behind the advanced DURAFLO Composite OEM and Replacement Screens

M-I SWACO DURAFLO composite screens are generally comprised of a glass fiber-filled, polypropylene frame bolstered with an internal high-strength steel reinforcing structure. Using a patented process, one to three layers of stainless steel wire cloth are bonded directly to the composite frame by melting the cloth precisely to the top surface of the polymer frame. M-I SWACO holds patents for both the composite design and production process.

Longer Screen Life

The composite frame design encompasses the "window pane" effect of incorporating an increased number of smaller panels, thereby evenly distributing mechanical stresses and containing mesh damage to small localized areas. As DURAFLO composite screens are not conducive to rusting, they can be used, stored and re-used on future wells.

Reduced Screen Weight

DURAFLO composite screens weigh about the same as our first generation composite, HI-FLO screens. However, it weighs up to 40% less than traditional metal framed screens. Lower screen weight, in turn, enhances shaker G-force.

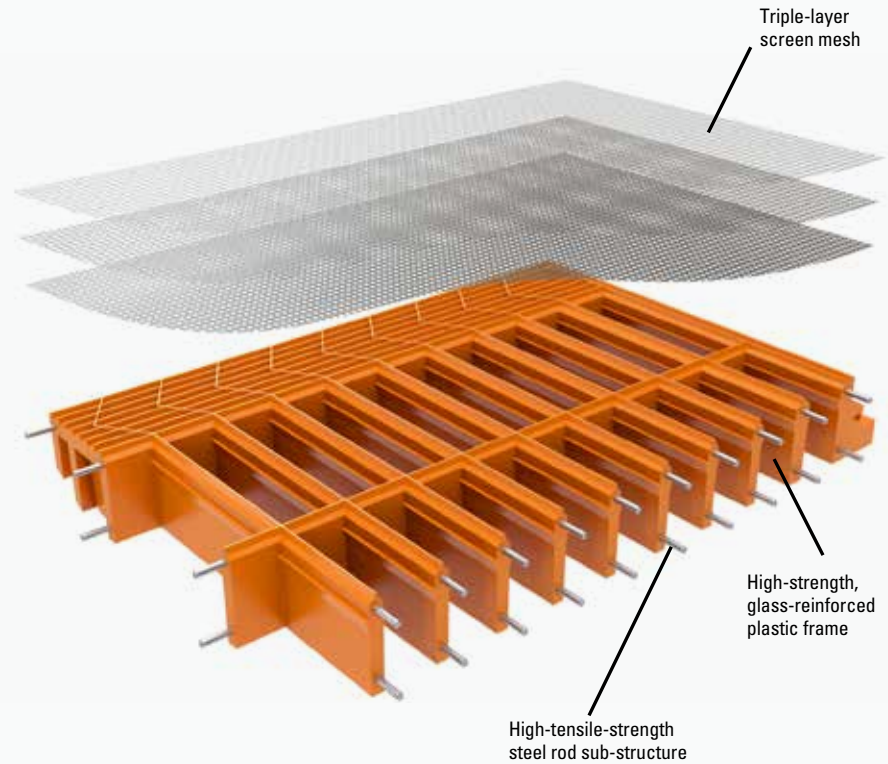
Easy, Fast Screen Repair

The patented SNAP-LOK† plug-repair system is available on DURAFLO composite screens for the M-I SWACO BEM-650† shale shaker and NOV Brandt VSM 300 shakers. The innovative SNAP-LOK plug-repair system reduces screen repair time to less than two minutes, reducing the rig time for shaker maintenance and service. With the SNAP-LOK plug-repair system, repair is a simple matter of removing the screen from the shaker and snapping in a factory-made plug. The system eliminates the need for removing the damaged mesh and requires no cutting, gluing or bonding time.

The anatomy of the three-layer DURAFLO composite screen

DURAFLO composite screen frames consist of a high strength plastic and glass composite material that is reinforced with high-tensile strength steel rods.

- Exclusively patented by M-I SWACO (U.S. Patent # 6,675,975)
- First major platform advancement in oilfield screens industry
- Polypropylene frame molded around an internal steel cage
- Each layer of mesh is tensioned individually and precisely
- Co-molded Gasket Design

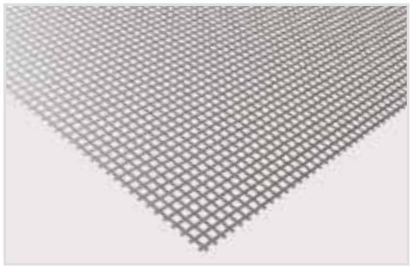


Variety of screen mesh types available

With the DURAFLO frame as a solid base, M-I SWACO offers four different mesh types, allowing operators to choose the most efficient mesh type for the job without sacrificing durability and fluid processing capacity.

MG (Market Grade)

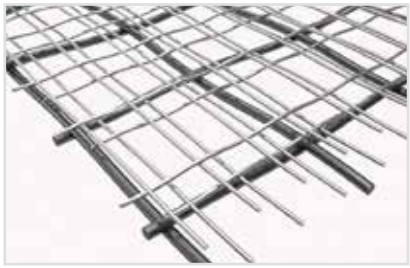
MG is our most basic mesh type, featuring a single layer cloth with heavy wire diameter and square openings. Because of the durable, heavy wire diameter, this mesh type is mainly used as scalping screens and provides excellent screen life.



Graphical representations only

HC mesh type features fine wires with rectangular openings.

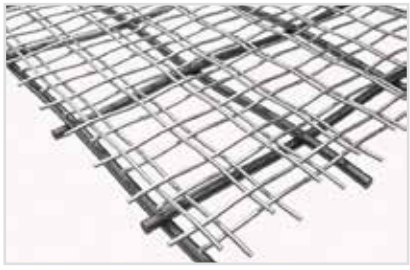
The two fine screening layers over a support cloth provides superior performance in blinding applications and yields excellent capacity with screen life equal to XL mesh. While the fine wire diameter provides excellent capacity, this mesh type has shorter screen life and lower separation efficiency compared to our other mesh types.



Graphical representations only

Ultra-Fine (XL) screen

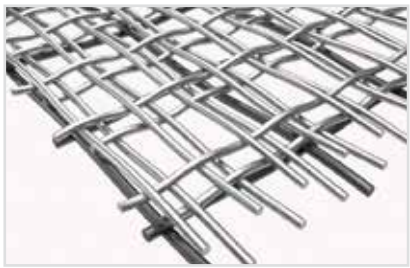
The Ultra-Fine (XL) screen has been specifically designed to cope with drilling sandstone formations, which typically present blinding problems using standard screen mesh types. Our XL mesh features two fine screening layers with a support mesh having square openings of medium wire diameter for improved capacity, screen life, and blinding resistance compared to standard mesh.



Graphical representations only

Patented XR mesh

Rectangular openings, 50% larger diameter wire combined with our patented cloth calendaring design gives XR mesh excellent capacity and the longest screen life in the industry. XR mesh coupled with DURAFLO composite screen technology allows best in class fluid-handling capacity. This high conductance results in reduced mesh loading when compared to traditional mesh types.



Graphical representations only

Screen performance, API Compliance

As the industry's solids control leader, M-I SWACO is committed to providing the highest-quality products and services. All screens supplied by M-I SWACO manufacturing facilities conform to API RP 13C, the internationally standardized and recommended practice for testing and labeling of shale shaker screens. The American Petroleum Institute (API) standard RP 13C describes and defines, without bias, the maximum screen opening sizes and flow potential in a reproducible, consistent manner without predicting performance. Our screen offerings are API compliant, and sealed with the integrity of our extensive research and development testing program and dedicated engineering staff. Each screen and screen box is labeled with the API designation, the d_{100} micron cut point, conductance, and non-blanked area according to API RP 13C.

Consequently, every M-I SWACO composite screen comes with verified assurance that they are:

- API compliant
- API RP 13C test results via an independent lab
- Continuously confirmed and verified by our in-house Engineering Department
- Manufactured with the most advanced raw materials available, ensuring no compromise in quality

Cut Point Testing (d_{100})

Our composite screens undergo the standardized API RP 13C dry aluminum oxide sieve method that correlates particle sizes with ASTM test sieves to define the maximum particle size (d_{100}) cut points. These cut points are denoted with an equivalent API number. The test defines the cut point as the particle size in which 100% of the particles larger than the d_{100} separation are retained by the test screen. This test is not a performance indicator, but rather is a way to characterize openings of the screen mesh.

Conductance

Standardized conductance testing under API RP 13C is determined by measuring the flow rate of oil through a section of screen. The test is used to determine the ability of a fluid to flow through a screen at a pre-determined pressure drop, which is measured in kilodarcy per millimeter (kD/mm). A higher conductance value means fluid will pass through the screen more easily than a screen having a lower conductance value. The calculated value is analogous to permeability per unit thickness.

Screen efficiency testing

As the API RP 13C results simply characterize screen openings, rather than indicate screen performance, M-I SWACO went beyond the standardized tests to reflect actual field conditions. Specifically, in field operations, operators must process wet cuttings that differ in size, shape and other properties from well to well. Accordingly, these real-world conditions vary significantly from the API test method of sifting dry aluminum oxide for 10 min.

Where the API procedure uses dry aluminum oxide with a 10-min residence time on a Ro-Tap sieve shaker, the M-I SWACO screen-efficiency test data is derived through use of a MONGOOSE PT shale shaker with full-size screens and solids laden water based mud.

The labeling system on both DURAFLO composite screens and boxes makes screen identification trouble free. The labels have been laminated with a heat- and oil-resistant coating, making it easy to identify screen size, mesh size and API data, even after prolonged use.

API Standard Screen Labeling

API RP 13C encourages industry compliance to international standards by requiring a permanent tag or label be applied to the screen that is visible, legible and follows established guidelines. All of our screens are API Compliant. The part numbers are simply part numbers and have no reference to screen cut point.

d_{100} Separation and API Screen Number

d_{100} separation µm	API Screen number
> 3 075,0 to 3 675,0	API 6
> 2 580,0 to 3 075,0	API 7
> 2 180,0 to 2 580,0	API 8
> 1 850,0 to 2 180,0	API 10
> 1 550,0 to 1 850,0	API 12
> 1 290 to 1 550,0	API 14
> 1 090 to 1 290,0	API 16
> 925,0 to 1 090,0	API 18
> 780,0 to 925,0	API 20
> 655,0 to 780,0	API 25
> 550,0 to 655,0	API 30
> 462,5 to 550,0	API 35
> 390,0 to 462,5	API 40
> 327,5 to 390,0	API 45
> 275,0 to 327,5	API 50
> 231.0 to 275,0	API 60
> 196,0 to 231.0	API 70
> 165,0 to 196,0	API 80
> 137,5 to 165,0	API 100
> 116,5 to 137,5	API 120
> 98,0 to 116,5	API 140
> 82,5 to 98,0	API 170
> 69,0 to 82,5	API 200
> 58,0 to 69,0	API 230
> 49,0 to 58,0	API 270
> 41,5 to 49,0	API 325
> 35,0 to 41,5	API 400
> 28,5 to 35,0	API 450
> 22,5 to 28,5	API 500
> 18,5 to 22,5	API 635

DURAFLO Composite OEM Screens for MONGOOSE PRO, MONGOOSE PT & MEERKAT Shakers

For MONGOOSE series shakers

DURAFLO composite screens for the MONGOOSE Series Shakers (including MEERKAT PT) features unique wedge mechanism for screen locking. The composite construction combined with the efficient and easy locking mechanism eliminates solids bypass which give way to costly required fluid dilutions. In addition, it allows easy screen removal, repair, or replacement.

Field Proven Results

Recent field trials showed that the new M-I SWACO MONGOOSE pre-tensioned screens on composite frames help reduce operating costs and provide superior performance, greater reliability and longer screen life.

An operator in Russia set a goal to reduce overall operational cost through sustained high performance and extended shaker screen life. Two MONGOOSE PT† Shakers and one MONGOOSE PT Mud Cleaner were installed on the rig with an onsite team of solids control and drilling fluid engineers performing a detailed screen life-consumption monitoring test on one well. The screens were also selected to meet operational needs for drilled solids removal and commercial solids retention and cleaning, inspection, repair and reuse.

Sustained High Performance

The project challenge was to provide shaker screens that delivered sustained high performance (solids separation, fluid handling capacity, minimized bypass and minimum whole fluid discharge), improved drilling performance (fluid specifications maintenance, optimum rheological values, high rate of penetration and borehole stability) and offered extended life. The ultimate goal was to reduce overall operational cost from drilling fluid dilution and consumption.

Exceptional Screen Life

The M-I SWACO screens showed exceptionally good screen life, keeping mud properties on a predetermined level. No screen change or condition affected solids-control efficiency or rig-down time for the entire test period. Tested screens showed perfect solids-control efficiency, blinding resistance and durability. Drilled solids content in the fluids was maintained at the level required by the client. Screen life of some of the models exceeded expectations.

Significantly Reduced Costs

Superior fluid handling and solids-removal capacity characteristic to these screens resulted in overall increased solids control efficiency and achieved a 15 percent reduction in the cost of drilling fluid chemicals per well. The test showed very good performance and reliability of M-I SWACO screens. Mud properties were kept on a predetermined level without any delays, time gaps and deviations. Screens showed exceptionally good screen life. Long screen life means less overall project cost for the customer

As a result of the net economic benefit and outstanding screen performance, the operator changed the contracting strategy and increased the number of rental projects for the year by 30 percent.

DURAFLO Composite OEM Screens for MD-2 Dual-Deck & MD-3 Triple-Deck Shakers

For MD series shakers

The MD Shakers and Screens were designed in tandem, to take full advantage of the technology available through the use of composite materials, while maximizing shaker performance.

The DURAFLO composite screens for MD Series Shakers feature a novel self-latching design that maintains screen-to-screen seal. This allows screens to be removed as a unit instead of individually, with no tools required.

Field Proven Results

The MD-3† triple-deck shale shaker has proven its superiority in its first field test onshore in the Middle East. The overall performance of the MD-3 shale shakers during the comparative field trial effectively validated its operational and economic advantages over three competing shakers. MD-3 shale shaker performance was enhanced by DURAFLO composite screen technology that allows for changes in deck angle and motion selection that improve efficiency.

The test compared flow handling capacity of the MD-3 shale shaker to the rig's previous shakers. During the trial in the 12 ¼ in interval, a single MD-3 shale shaker was able to efficiently and effectively handle the entire circulating volume with the same or higher API designation screen used on the three previous shakers.

Superior Screen Life

Two MD-3 shale shakers replaced the three non M-I SWACO shakers in a comparison of flow handling capacity, solids handling and conveyance capacity, and screen life. During the duration of the 16,568 ft (5,050 m) well, the MD-3 shale shakers utilized six different screen sizes on the primary decks, ranging from API 70 (120 XR) to API 140 (230XR) and were tested for various lengths of time to compare capacity, OOC% and screen life.

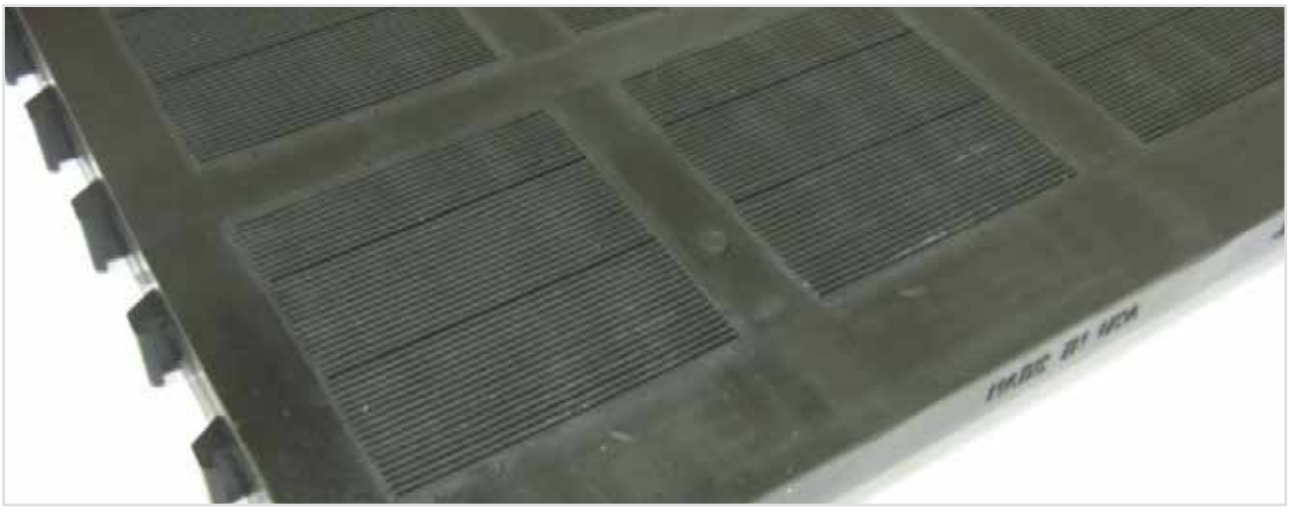
There were 2,799 bbls (445 m^3) of drill cuttings removed from the well (considering 0% washout). Counting the four scrapped screens and the 36 screens on the shakers at completions, only 40 total screens were consumed. Past screen consumption from similar exploration wells was 115 screens per well for the three rig shakers.

Superior Cuttings Performance

The MD-3 shale shaker DURAFLO composite screen, on average, processed 287% more cuttings before being defined as "consumed." Total planned well time was 162 days. Once the shakers were installed, the time needed to complete the well was only 125.75 days, a savings of 36.25 days, or 78 percent compared to plan.

The ability to process the full planned flow rate with the MD-3 shakers installed was extremely beneficial. At the start of the 12 ¼ in interval, a single MD-3 shaker processed the entire circulating volume with ROP rates from 50 – 197 ft/hr (15 – 60 m/hr) and flow rates of 872 – 925 gpm (3,300 – 3,500 lpm) while utilizing API 120 (200 XR) DURAFLO composite screens. While utilizing the MD-3 shaker and the generously available screening area for the well, the rig did not experience any whole mud losses due to screens overflowing.

URETHANE OEM Screens for MD-2 Dual-Deck & MD-3 Triple-Deck Shakers



M-I SWACO offers a unique urethane screen for use on MD Series Shakers, for use in heavy clay and gumbo formations when high-solids loading is the rule rather than the exception.

Urethane screens shakers have narrow slotted openings with a tapered cross section. Two opening sizes are available: .8 x 118 mm, which has a similar cut point as a 20 mesh market grade screen, and 2.5 x 118 mm, which is similar to an 8 mesh market grade screen. The rectangular openings and tapered cross section of the opening improves blinding resistance over standard square mesh scalping screens.

The smooth top surface of the urethane screens transports gumbo and sticky clay formations off of the scalping deck. On typical scalping screens, gumbo and sticky clay embed into the coarse, single layer of woven wire cloth, preventing good solids conveyance off of the screens. Gumbo can build up in large pats that eventually cause the loss of whole mud off of the shaker.

In field tests, the urethane screens proved very effective in handling solids in these formations. Urethane is used in many industrial applications to resist abrasive wear. Urethane scalping screens fully utilize these wear resistant properties in the abrasive environment of the shale shaker, resulting in a screen that can last several times longer than standard scalping screens. Each urethane screen has a high strength reinforcing cage that is molded into the screen, efficiently transferring the vibratory energy from the shaker to the screen surface. Push-and-lock latches are located on the ends of the screens to make screen changes easy without the use of any tools. Urethane screens should only be used in water based drilling fluids. Some oil based fluids can cause the urethane to swell and will shorten screen life.

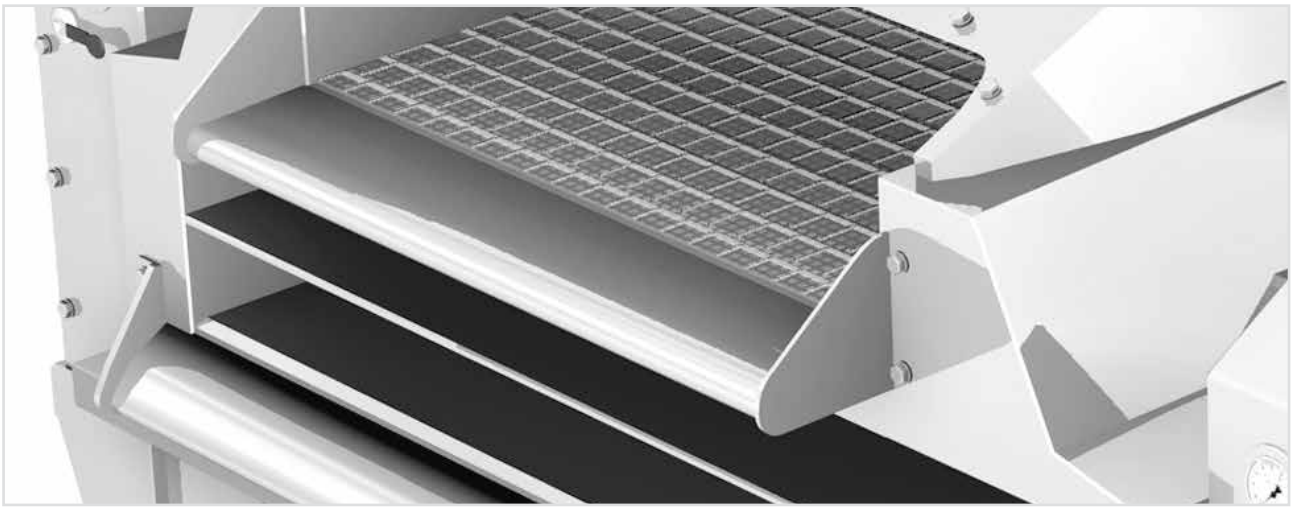
Field Proven Results

Recent testing on a South Louisiana well in a difficult 20" top-hole section and in the 14.75" intermediate section proved the efficiency of urethane screen technology in problematic formations. The MD-3 shale shaker scalping deck utilized urethane screens to efficiently discard large volumes of sticky gumbo thereby freeing up the lower decks to process the undesirable fines and low gravity solids. During the 20" top-hole section, which consisted primarily of gumbo and sand formations, the MD-3 shale shaker, equipped with .8 mm slotted opening urethane screens on the scalping deck and HC 84 mesh (API 60) screens on the two primary decks was able to process a maximum of 840 GPM during the 20" interval which was more than the combined processing rate of the existing three rig owned shakers. During the 14.75" intermediate section, the MD-3 shale shaker averaged a fluid processing rate of 700 GPM with a maximum processing rate of 850 GPM while equipped with .8 mm urethane screens on the scalping deck and HC 200 mesh (API 100) screens on the two primary decks. The MD-3 shale shaker urethane scalping screens were very efficient at removing gumbo and exhibited minimal to no wear after 548 hours of processing time.

Features & Benefits

- Choice of two opening sizes, 0.8 mm or 2.5 mm
- Small screen size: 61 x 66 cm
- Patent-pending self-latching feature
- Smooth top surface
- Internal steel reinforcing structure
- Effective scalping of sticky clay
- Easy to handle and install
- Reduced downtime resulting from easy screen removal

DURAFLO Composite OEM Screens for BEM-600 & BEM-650 Shakers



For BEM series shakers

The DURAFLO OEM composite screen for M-I SWACO BEM-600† and BEM-650 shale shakers takes the best screen and matches it to the best balanced elliptical motion shakers on the market. Featuring a patented, composite frame design that holds up under virtually all drilling conditions, the screen delivers unsurpassed usable screen area.

Field Proven Results

As part of a major upgrade package for an offshore PEMEX rig in Ciudad del Carmen, Mexico. Then rig was fitted with two BEM-650 elliptical motion shakers. The rig drilled through predominately sticky shales using a 13 lb/gal invert emulsion drilling fluid, with high ROP's. The performance of the shakers were monitored closely by both M-I SWACO fluids engineers and Environmental Solutions technicians throughout the campaign to assess performance in comparison to the previous shaker package. Our DURAFLO composite screens were recommended in mesh sizes 40 to 165, having equivalent API's of 40 to 140 .

Enhanced Screen Life = Reduced Costs

Recorded data showed screen service life of 400 hours using 120 mesh screens, while drilling through sticky shale and handling flow capacity of 600 gal/min. Historical rig data showed DURAFLO composite screens technology allowed the rig to screen the finest without massive fluid loss when compared to other shaker screen packages. The BEM-650, equipped with DURAFLO composite screens proved to be exceptional and eliminated the use of mud cleaners and other equipment = $$ savings for the customer. In addition,it was noted that no screen blinding was observed when drilling through the sticky clay formation, giving way to increased screen life compared to historical data.

High Fluid Recovery

For consistent solids conveyance, BEM-650 DURAFLO composite screens include individually pre-tensioned mesh, which is incorporated into the composite frame. As a result, it was noted that solids were +70% drier compared to historical well data, equating to additional operator savings from the recovery of costly drilling fluid.

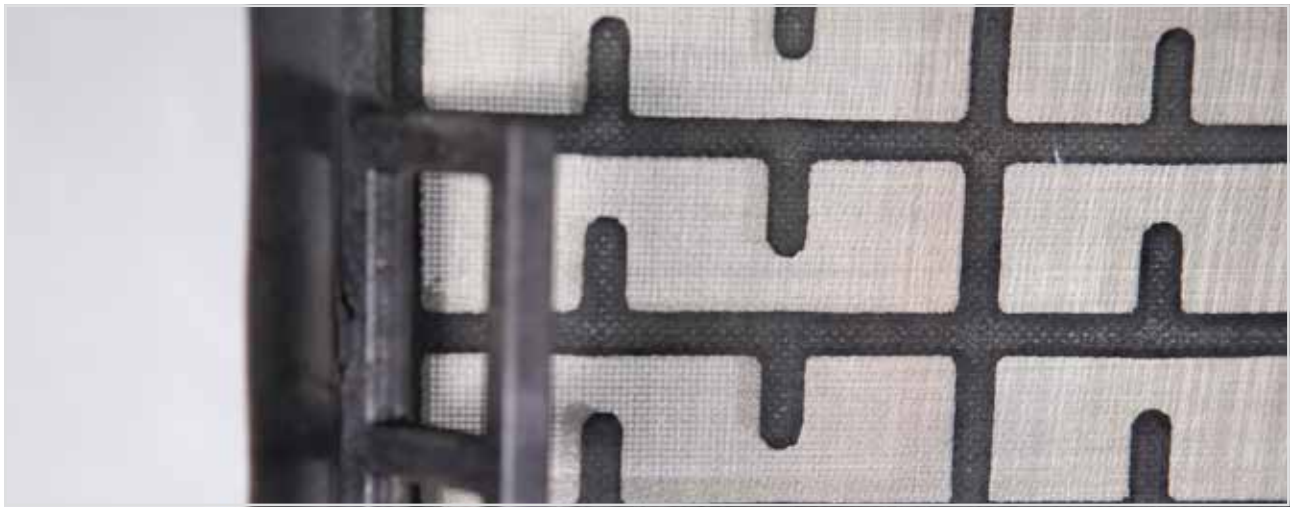
Reduced NPT

During operation, rig personnel observed and commented on the convenience of the screen clamping system, which allowed screen changes in less that 3 minutes, reducing NPT for additional reduction in operational costs.

Features & Benefits

- Patented, composite frame design
- Smaller, more numerous panels consistent open area= 5.4 sq. ft
- Resistant to fluids that shorten metal frame-screen life
- Consistently manufactured, rugged construction
- Increased operational life
- Lower screen-replacement costs
- Quick and easy to repair
- Less downtime
- Does not rust or delaminate
- Improved QHSE considerations

DURAFLO Composite Replacement Screens for Derrick^ FLC 500 Series Shakers



For Derrick D500 shale shakers

Our newest innovation in our composite technology replacement screen offering is the D500-C flat-panel replacement, designed to fit Derrick^ FLC 500 brand shakers while eliminating the "horse-shoe" effect. The OEM, corrugated screen design promotes solids build up in troughs, giving way to excessive wear and must be run at elevated deck levels to utilize the additional screening area of peaks. Increased deck angles result in reduced screen life due to poor solids conveyance.

Our solution is the D500-C flat-panel replacement design featuring our patented, lightweight composite frame with glass filling and internal steel reinforcement structure designed to stay flat and parallel to the shaker bed, eliminating the horse-shoe effect which leads to increased dry beach, pre-mature screen wear, and screen blinding.

Field Proven Results

Recent field trials showed the D500-C flat-panel replacement screen to be superior in screen life and performance efficiency. Given the nature of the drilled formation, we recommended an API 140 version of our patented D500-C flat-panel replacement screens in XR mesh. Testing proved the D500-C flat-panel replacement screens are able to match the handling capacity of the competitor's corrugated screen with better liquid returns quality, further highlighting the flat panel design benefit. Even more, the D500-C flat-panel replacement screen decreased "dry beach" and "horseshoeing" phenomenon's which promote premature screen blinding.

Flat Panel Design Eliminates the "Horseshoe" Effect

The competitor's OEM Shaker features a crowned deck to keep screens from flexing under fluid load. However, this design results in reduced fluid handling and whole mud losses via bypass along the sides of the shaker bed. Additionally, shakers must be run at high deck angles to take full advantage of screening area, causing undue damage and costly repairs to shaker beds. Our lightweight, flat panel, composite technology eliminates the effects of having a crowned deck and resulting horseshoe phenomenon.

Screen Life

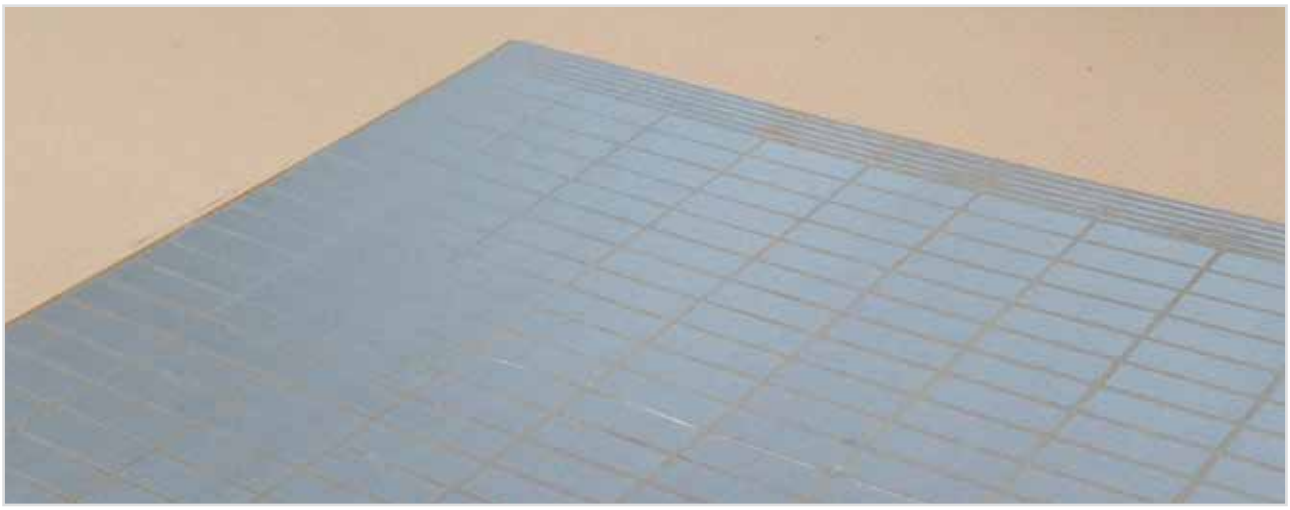
The D500-C flat-panel replacement screens proved more than capable of handling the 8 ¾" drilled section in Southwest Oklahoma. It was observed that the M-I SWACO D500-C flat-panel replacement screen showed greater resistance to screen mesh wear and gasket life vs. the OEM corrugated design. In addition, our composite flat panel showed superior screen life, reducing screen replacements by 60% after 30 days of production vs. the competitor.

Features

- High flat usable area to increase fluids handling capacity
- Effective and continuous cuttings contact to maintain fluid quality and reduce haul-off costs
- Eliminates horse-shoe effect while maximizing usable non-blanked area using the flat panel design
- Co-molded gasket to negate solids by-pass near the sealing mechanism
- Integrated handle design for easy handling, quick installations & change outs
- Increased Screen Life (no rust, corrosion, adhesives)
- Improved Solids Conveyance
- Lightweight for enhanced shaker G's

^Derrick and FLC 500 are marks of Derrick Corporation.

DURAFLO Composite Replacement Screens for Brandt^ VSM 300 Shakers



For Brandt VSM 300 shale shakers

The new and improved DURAFLO composite replacement screen to fit the Brandt VSM 300^ brand shaker takes the best screen for this shale shaker to the next level of performance. This screen uses a new frame design that features several improvements over original DURAFLO composite screens. It is lighter, more easily repaired, promotes longer screen life and is easier to remove. DURAFLO composite screens are available with TBC, Ultra-Fine (XL) and XR MESH, giving operators screening flexibility in addition to an overall-improved product.

Field Proven Results

Performance Superiority

The M-I SWACO VSM 300 DURAFLO composite flat panel screen has proven its superiority to a competitor's metal back screens, demonstrating drastically reduced screen consumption and planned rig time while processing almost three times the drill cuttings for a drilling contractor in Oman.

In a move to improve efficiency and decrease operating and maintenance costs, the drilling contractor entrusted M-I SWACO to compare the performance efficiency of a competitor's metal back screen to the VSM 300 Composite flat panel screen. The selected platform included two VSM 300 rig-owned shale shakers from NOV/Brandt.

VSAT Assessment

After visual inspection, M-I SWACO ran a comprehensive motion analysis test on both shakers using the VIBRATORY SYSTEMS ANALYSIS TESTING† (VSAT†) computerized application to assess shaker performance and allow shaker specifications to be bench marked and normalized for fair, unbiased screen comparison.

Given the nature of the drilled formation, the M-I SWACO benchmark study utilized API 140 to API 170 screen versions of the company's patented 200-230 XR mesh screens in a side-by-side comparison with the competitor's metal back screen with the same API designation.

Reduced Screen Consumption

The VSM 300 outperformed the competitor's screen in flow capacity, solids discard rate, screen efficiency, and screen life. The VSM 300 showed overall superior screen life with a failure rate of less than 3 percent. Only four out of 151 screens were replaced due to normal wear with 147 returned to the used inventory container, reducing screen consumption 65 percent for the operator vs. OEM metal backs.

Features

- 4.62 sq. ft of precision molded nba
- Smaller, more numerous panels
- Increased open area
- SNAP-LOK plug-repair system for the NOV Brandt VSM 300 shaker
- Redesigned, interlocking joint
- Weighs 40% less than OEM

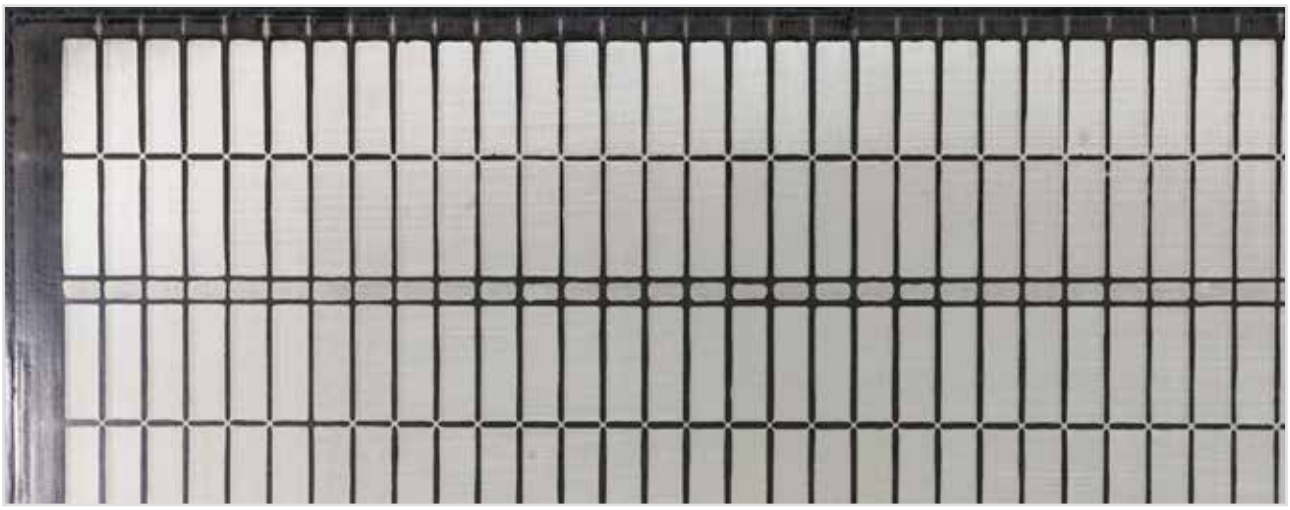
Benefits

- Increased operational life
- Lower screen replacement costs
- Higher throughput
- Quick and easy to repair
- Less downtime
- Higher conductance rate
- Safer, faster and easier to handle
- Does not rust or delaminate

^NOV Brandt, VSM 300, Cobra, King Cobra and LCM-3D are marks of Varco I/P, Inc.

Oilfield Screens: **Composite Screens**

DURAFLO Composite Replacement Screens for Brandt^ Cobra, King Cobra & LCM-3D Series Shakers



For NOV Brandt Cobra shakers

The DURAFLO Composite Replacement Screens from M-I SWACO, for the NOV Brandt Cobra^, King Cobra^ and LCM-3D^ shakers, provide greatly improved performance and reliability over traditional metal-backed screens.

The design features a soft gasket and allows the screen to be removed and reinstalled while maintaining a reliable sealing mechanism. These improvements give way to improved screen life and screen costs per well, resulting in significant operator savings.

Field Proven Results

Recent field trials with a drilling contractor in Brazil continued to demonstrate the performance superiority of DURAFLO Composite Screens over OEM steel frame screens in key benchmarks, contributing to a 60 percent cost savings.

The drilling contractor, wanting to further reduce operating and maintenance costs, allowed M-I SWACO to evaluate, record and compare the performance and efficiencies of the M-I SWACO DURAFLO composite screens against a competitor's OEM screens used on King Cobra shakers. OEM screen use ranged from 45 to 92 screens across five wells, averaging 67.4 screens per well on two primary shakers and one mud cleaner.

Technology Versatility

The drilling contractor and M-I SWACO agreed to conduct the screen trial on a rig drilling with both water- and synthetic-based drilling fluids. This allowed M-I SWACO to illustrate the superiority of its DURAFLO screen technology. To initiate and properly conduct the test, M-I SWACO provided the drilling contractor and well operator with a full VIBRATORY SYSTEMS ANALYSIS TESTING (VSAT) program of the rig-owned shakers to ensure any operational issues could be corrected and that results would be absolute and non-biased.

Exceptional Performance

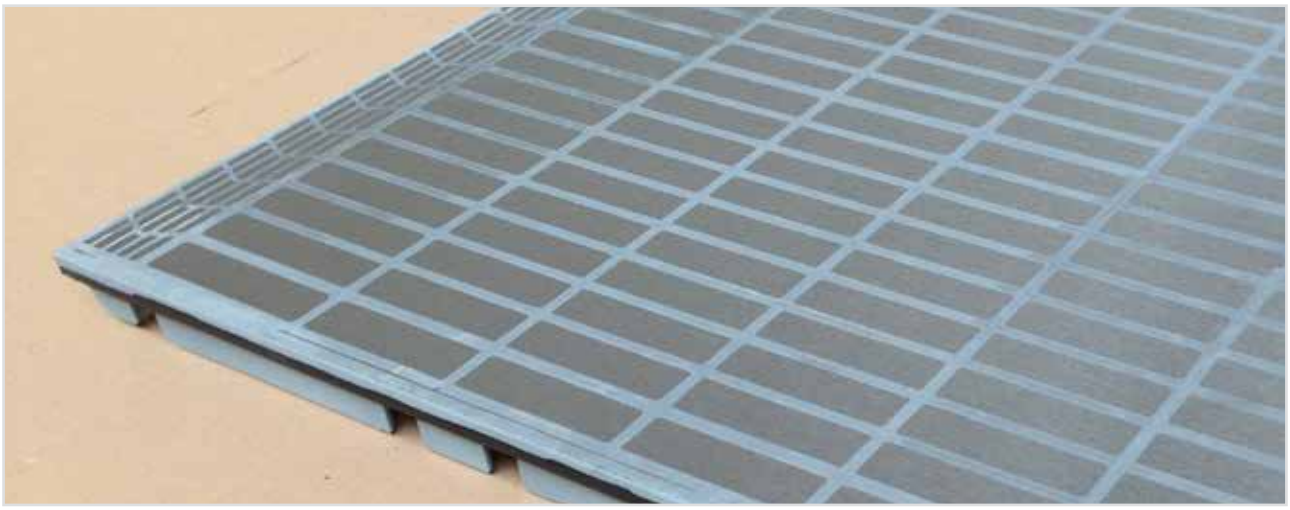
Shortly after running both screen models, it was evident that the unusually high number of OEM screens per well was due to the screens not conveying the hydrated clay formation well. Large masses of cuttings would build up in the center of the screen and halt the conveyance process. After testing in the 17½ in., 12¼ in. and 8½ in. intervals, the M-I SWACO DURAFLO composite replacement screens outperformed the OEM screens in four benchmarks: screen consumption, flow capacity, non blanked area, and screen deflection (G-force) leading to a decrease in cost of screens per well.

Features & Benefits

- Lighter weight vs traditional OEM equipment
- 5.5 ft^2 of precision molded NBA
- Co-molded gasket, eliminating bypass
- No Crown Rubbers required
- Corrosion resistant
- Gasket molded into the frame rather than glued with potentially delaminating adhesives
- Consistent Tension on mesh applied during bonding of each layer to frame
- Increased screen life and reduced chance of catastrophic failure as a result of the patented, one-piece design
- Screens available in XR, XL, and HC in all API designations.
- Also available with MG cloth for coarse scalping applications

^NOV Brandt, VSM 300, Cobra, King Cobra and LCM-3D are marks of Varco I/P, Inc.
[1]Results obtained testing screens for the MONGOOSE PT shaker.

DURAFLO Composite Replacement Screens for Axiom^ Shakers



For Axiom AX-1 shakers

With the M-I SWACO DURAFLO Composite Replacement Screens for the Axiom AX-1^ shaker, the metal backed screen is replaced with a rigid, lightweight composite material and does not use the sliding steel tray for support. DURAFLO screens have a patented design that is unique to our industry and has many field-proven benefits.

The DURAFLO AX-1 is a composite replacement screen for Axiom brand shakers. It features the patented design utilizing a polymer frame with the steel reinforcing structure.

In addition, it features a specialized gasket made of softer, more pliable material which is co-molded onto the leading edges of the composite frame. This provides a soft but durable seal between the shaker bed and screens themselves. The design also features the easy latching system which joins screens during operation and allows easy removal without the need for additional tools and accessories.

Field Proven Results

Recent GOM & Brazil Field Trial data confirm superior DURAFLO composite screens performance in regard to screen life, separation efficiency, cuttings conveyance and enhanced shaker G-force.

Screen Consumption

The highly supported, durable composite design outperformed he competitor's OEM in the Gulf of Mexico, by reducing screen consumption by 25% during the 8½" oil production interval using synthetic oil based drilling fluid. The flat panel design allowed excellent fluids handling capacity without the need for costly screen change-outs.

Cuttings Conveyance

Using our patented flat-panel design, our DURAFLO AX-1 composite screens was able to decrease cuttings conveyance rates by ~23% while maintaining superior cuttings dryness. Retort analysis of the discharge stream indicated an improved mud recovery of nearly 40% compared to the competitor's OEM. Bottom line – we process cuttings faster, minimizing screen damage; and better, allowing the operator to recover more costly drilling fluid to the active system.

Enhanced Shaker G's

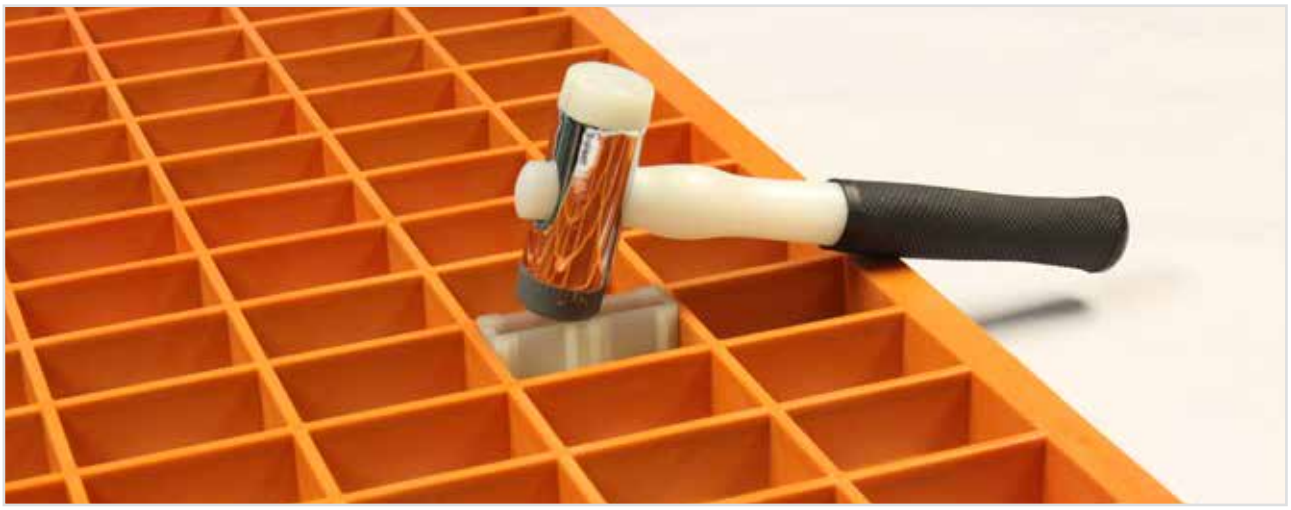
The lightweight composite material used for our DURAFLO AX-1 composite screens reduces screen weight significantly, allowing for higher shaker G-Forces and minimizes shaker basket wear. The resulting 10% increase in shaker G-Force allows better conveyance as noted. Screen weight was reduced by 59% vs. the competitor's OEM, shedding over 450 lbs!

Features and Benefits

- Use of a heavy, sliding steel support tray is no longer necessary, which improves overall shaker G-force
- 60% reduction in weight on shaker basket
- Easy to use push-and-lock latches make screen changes fast and easy
- Corrosion-resistant
- Consistent tension
- Mesh is bonded directly to the frame and thereby, improves the life of the screen
- Equivalent non-blanked area of OEM screen, of 2.8 ft^2
- Choose from XL, HC, and XR meshes

^Axiom AX-1 is a mark of Axiom Process Ltd.
[1]Results obtained testing screens for the MONGOOSE PT shaker.

SNAP-LOK Repair System for DURAFLO Composite Screens



SNAP-LOK Plug-Repair System is an exclusive feature of M-I SWACO DURAFLO Composite Screens

This technology offers the convenience of screen repair to reduce NPT, equating to savings in operational costs.
In addition to reducing NPT, the SNAP-LOK plug-repair system enables the extension of screen life by allowing repair for up to 10% of total screen cell count, to reduce screen replacement costs. For cell damage above 10%, screen replacement is recommended.

Easy as 1-2-3, screens can be repaired and back in operation at a fraction of the time using conventional repair systems.

1. Turn the screen over and lay on a flat surface.
2. Place plug above damaged cell, with hollow section facing up and insert as far as it goes.
3. Using a rubber mallet, tap the plug into place until hearing an audible click.

When plug is fitted correctly, it cannot be removed.

Installing a SNAP-LOK Plug

- Step 1: Identify the damaged panel. SNAP-LOK plugs can be fitted into any location within the frame except those openings adjacent to the shader side walls.

- Step 2: Turn the screen over and lay the screen on a flat surface (a bench or the floor, for example) in an area free of obstructions. Place the plug above the damaged panel with the hollow section facing up.

- Step 3: Push the plug in as far as it goes.

- Step 4: Place a second plug on top of the first plug with the hollow section facing down.

- Step 5: Push down on both plugs with your hand until the first plug clicks into place. If the plug does not click into place, use a hammer or a mallet to tap the second plug. Hold the second plug in place with a finger to prevent it from jumping back. Make sure both ends of the plug are struck firmly.

- Step 6: When the plug is fitted correctly, the second plug will sit flush with the rest of the frame. Remove the second plug from the frame. Once the first plug is in place, it cannot be removed.

M-I SWACO Commodity Screens Portfolio

M-I SWACO screens portfolio also includes both commodity pretensioned and hookstrip type metal back replacement screens and plastic back, hookstip screens.

Metal Back OEM & Replacement Screens

Our lightweight, repairable hookstrip-metal back offerings include replacements for Derrick FLC 500, featuring 1 to 3 layers of mesh with a metal grid and hook strips. Our pretensioned metal back offerings include M-I SWACO, Brandt (Cobra, King Cobra, LCM3D, D285P/380P), Fluid Systems (Black Thunder, 29x42), Kemtron (KPT 28), and Vortex Fluid Systems (Orbital), featuring 1 to 3 layers of repairable, tensioned mesh bonded directly to a metal grid and rigid frame, eliminating the "horseshoe" effect.

Plastic Back OEM & Replacement Screens

Our lightweight, repairable hookstrip-plastic back offerings include M-I SWACO (ALS, BEM-3) Brandt (LCM 2D, LM3, 4X5), Derrick (FLC 300, FLC 2000), Kemtron (KDX), Triton (Triton), and Vortex Fluid Systems (Orbital), featuring 1 to 3 layers of mesh with a plastic grid and hookstrips.

While not our premium offering, our commodity screens come with the same exceptional commitment to quality and API compliance. Customers have the option to customize their operations without compromising quality, using our diverse portfolio of premium and commodity screens.

VIBRATORY SYSTEMS ANALYSIS TESTING (VSAT) Program

The M-I SWACO VSAT program is a proven solution for operators who are experiencing sub-par shale-shaker performance.
The VSAT service, provided as part of the VSAT program, includes an inspection of the problem shakers, a review of rig practices, a vibratory-motion analysis of the shakers, a written evaluation of the findings and recommendations for improving performance.
More than 30 major operators have used the VSAT service with positive results.

As an option, the M-I SWACO VSAT specialist can conduct a training session for the rig's shaker hands. Subjects covered include screen selection, rig specific operating and maintenance procedures, and best practices compiled from worldwide operating experience.

How to tell when you need the VSAT program and service

If you are experiencing one or more of these critical problems, your rig will benefit from the VSAT program:

- Screen failures
- Fluid-capacity problems: drilling fluid flowing off the end of the shaker screens
- Poor solids conveyance
- Energy (G-force) output is less than expected
- Frequent Consumable part replacements
- Increased solids control costs
- Increased NPT on equipment
- Cuttings quality sub-par

Features

- Applicable to all common brands of shakers and screens
- Precise determination of all shaker-related problems
- Detailed equipment database of shakers and screens
- Clear, detailed written reports
- Training available for rig crews

Benefits

- Improved shaker performance, immediately and long-term
- Drier cuttings and lower disposal volumes
- Improved ROP and drilling fluid recovery
- Better drilling-fluid performance and longer life
- Better solids handling
- Cuts costs
- Reduced drilling waste volumes
- Longer screen life, better screen performance

API Compliant OEM & Replacement Screens Summary

		DURAFLO® Composite	Screen Weight (lbs)	Plastic Back Hookstrip	Metal Back (Flat Panel)	Unbonded Hookstrip	Metal Back (Hookstrip)	Pretensioned	Mesh Type	Screen Dimensions (inches)
OEM SCREENS	**M-I SWACO**									
	ALS†			✓					XL, XR	45.25" x 47.75"
	BEM-3†			✓		✓			MG, XL, XR	45.5" x 35.5"
	BEM-6†	✓	17.6						MG, HC, XL, XR	36 x 27.5
	MD-2†/MD-3†	✓	15.4						MG, HC, XL, XR	24.49" x 25.8"
	MONGOOSE†/MEERKAT† Series	✓	24		✓				MG, HC, XL, XR	23" x 45.875"
	2x6					✓			MG	24.25" x 72"
	4x3					✓			MG	45.25" x 47.75"
REPLACEMENT SCREENS	**AXIOM**									
	AX-1	✓	17.6		✓				MG, HC, XL, XR	27" x 24"
	Brandt / NOV / Rigtech									
	Cobra	✓	34		✓				HC, XL, XR	25" x 49.3125"
	King Cobra	✓	34		✓				HC, XL, XR	25" x 49.3125"
	Venom				✓				MG, HC, XL, XR	25" x 49.3125"
	LCM 3D	✓	34		✓				HC, XL, XR	25" x 49.3125"
	ATL 1000	✓	34		✓				HC, XL, XR	25" x 49.3125"
	4X3					✓			MG	45.25" x 36"
	LCM 2D/LM3			✓					XL, XR	45.25" x 36"
	4X5			✓		✓			MG, XL	48.5" x 59.5"
	D285P/380				✓				XL, XR	28" x 46.5"
	VSM 100	✓	15.4			✓		✓	MG, HC, XL, XR	25" x 36.25"
	VSM 300	✓	17.6					✓	MG, HC, XL, XR	27" x 35.5"
	Derrick									
	FLC 300			✓					XL, XR	33.25" x 27.5"
	FLC 500	✓	19.8				✓		XL, XR	41.5" x 27.5"
	FLC 2000			✓	✓	✓			MG, XL, XR	41.125" x 27.5"
	Fluid Systems									
	Black Thunder				✓				XL,XR	36" x 42"
	29x42				✓				MG, XL, XR	29" x 42.1875"
	Kemtron									
	KDDX					✓			MG	30" x 72"
	KDX			✓					XL, XR	28" x 48"
	KPT28				✓				XL, XR	28.25" x 49.25"
	Tri-Flo									
	2X3					✓			MG	24.5" x 36"
	4x3					✓			MG	48.5" x 36"
	Triton									
	Triton			✓					XL, XR	48.5" x 28.5"
	Vortex Fluid Systems									
	Orbital Vortex			✓	✓		✓		XL, XR	46" x 31.875"

Technical Data: **OEM Screens**

M-I SWACO ALS Shakers

Shaker Brand: M-I SWACO
Compatible with: ALS Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 50	XR	275	3.37	11.5	J/WSWAXR084L
API 70	XR	206	2.61	11.5	J/WSWAXR105L
API 70	XR	204	2.33	11.5	J/WSWAXR120L
API 100	XR	164	1.93	11.5	J/WSWAXR165L
API 120	XR	118	1.47	11.5	J/WSWAXR200L
API 140	XR	103	1.2	11.5	J/WSWAXR230L
API 170	XR	96	0.88	11.5	J/WSWAXR270L
API 230	XR	65	0.57	11.5	J/WSWAXR325L
API 270	XR	51	0.47	11.5	J/WSWAXR400L
API 60	XR	243	3.68	11.5	J/WSWAXR084F
API 70	XR	221	2.56	11.5	J/WSWAXR105F
API 80	XR	176	2.08	11.5	J/WSWAXR120F
API 100	XR	145	1.78	11.5	J/WSWAXR165F
API 120	XR	118	1.39	11.5	J/WSWAXR200F
API 120	XR	122	1.16	11.5	J/WSWAXR230F
API 170	XR	97	0.86	11.5	J/WSWAXR270F
API 200	XR	71	0.58	11.5	J/WSWAXR325F
API 270	XR	51	0.46	11.5	J/WSWAXR400F
API 18	XL	927	15.7	11.5	J/WSWAXL014L
API 20	XL	799	14.88	11.5	J/WSWAXL024L
API 35	XL	536	9.13	11.5	J/WSWAXL038L
API 50	XL	312	5.19	11.5	J/WSWAXL050L
API 60	XL	275	3.34	11.5	J/WSWAXL070L
API 70	XL	224	2.95	11.5	J/WSWAXL084L
API 80	XL	187	2.22	11.5	J/WSWAXL105L
API 100	XL	142	1.91	11.5	J/WSWAXL120L
API 120	XL	129	1.49	11.5	J/WSWAXL150L
API 120	XL	118	1.49	11.5	J/WSWAXL165L
API 140	XL	102	1.4	11.5	J/WSWAXL200L
API 170	XL	97	1.05	11.5	J/WSWAXL220L

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 200	XL	82	0.86	11.5	J/WSWAXL230L
API 230	XL	64	0.52	11.5	J/WSWAXL270L
API 270	XL	58	0.47	11.5	J/WSWAXL325L
API 270	XL	54	0.5	11.5	J/WSWAXL360L
API 325	XL	43	0.36	11.5	J/WSWAXL400L
API 60	XL	274	3.84	11.5	J/WSWAXL070F
API 70	XL	222	2.82	11.5	J/WSWAXL084F
API 80	XL	187	2.19	11.5	J/WSWAXL105F
API 100	XL	142	1.59	11.5	J/WSWAXL120F
API 120	XL	130	1.45	11.5	J/WSWAXL150F
API 140	XL	116	1.41	11.5	J/WSWAXL165F
API 140	XL	103	1.28	11.5	J/WSWAXL200F
API 170	XL	92	1	11.5	J/WSWAXL220F
API 200	XL	81	0.8	11.5	J/WSWAXL230F
API 270	XL	58	0.48	11.5	J/WSWAXL325F
API 270	XL	53	0.44	11.5	J/WSWAXL360F

Screen Specifications

- Dimensions (W x L, inches): 45.25" x 47.75"
- Parts ending in "L" designate standard three layer plastic back
- Parts ending in "F" designate heavy duty plastic back, four layer screen

Technical Data: **OEM Screens**

M-I SWACO BEM-3 Shakers

Shaker Brand: M-I SWACO
Compatible with: BEM-3 Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	XR	275	3.09	9	JBM3XR084L
API 70	XR	223	2.85	9	JBM3XR105L
API 80	XR	195	2.33	9	JBM3XR120L
API 100	XR	147	2.04	9	JBM3XR165L
API 120	XR	119	1.55	9	JBM3XR200L
API 140	XR	104	1.14	9	JBM3XR230L
API 170	XR	98	0.7	9	JBM3XR270L
API 200	XR	72	0.54	9	JBM3XR325L
API 325	XR	44	0.37	9	JBM3XR400L
API 60	XR	275	2.72	9	JBM3XR084F
API 70	XR	204	2.41	9	JBM3XR105F
API 80	XR	174	2.18	9	JBM3XR120F
API 100	XR	146	1.8	9	JBM3XR165F
API 120	XR	117	1.46	9	JBM3XR200F
API 140	XR	102	0.86	9	JBM3XR230F
API 170	XR	98	0.57	9	JBM3XR270F
API 230	XR	62	0.4	9	JBM3XR325F
API 270	XR	51	0.38	9	JBM3XR400F
API 60	XR	268	4.19	9	JBM3XR084B
API 70	XR	226	3.19	9	JBM3XR105B
API 80	XR	176	2.67	9	JBM3XR120B
API 80	XR	166	1.87	9	JBM3XR165B
API 120	XR	120	1.73	9	JBM3XR200B
API 120	XR	123	1.21	9	JBM3XR230B
API 170	XR	95	0.95	9	JBM3XR270B
API 200	XR	74	0.58	9	JBM3XR325B
API 270	XR	51	0.45	9	JBM3XR400B
API 170	XR	97	0.86	11.5	J/WSWAXR270F
API 200	XR	71	0.58	11.5	J/WSWAXR325F
API 270	XR	51	0.46	11.5	J/WSWAXR400F

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 14	XL	1302	13.09	9	JBM3XL014L
API 20	XL	788	13.8	9	JBM3XL024L
API 35	XL	528	7.72	9	JBM3XL038L
API 50	XL	290	4.31	9	JBM3XL050L
API 60	XL	275	3.35	9	JBM3XL070L
API 70	XL	222	2.89	9	JBM3XL084L
API 80	XL	173	2.28	9	JBM3XL105L
API 100	XL	139	2.06	9	JBM3XL120L
API 120	XL	122	1.39	9	JBM3XL150L
API 140	XL	115	1.56	9	JBM3XL165L
API 170	XL	88	1.43	9	JBM3XL200L
API 170	XL	88	0.98	9	JBM3XL220L
API 200	XL	75	0.79	9	JBM3XL230L
API 200	XL	74	0.47	9	JBM3XL270L
API 230	XL	58	0.42	9	JBM3XL325L
API 270	XL	55	0.41	9	JBM3XL400L

Screen Specifications

- Dimensions (W x L, inches): 45.5" x 35.5"
- Parts ending in "L" designate standard three layer plastic back
- Parts ending in "F" designate heavy duty plastic back, four layer screen
- Parts ending in "B" designate four layer, with specialized magnum bonding

Technical Data: **DURAFLO Composite OEM Screens**

M-I SWACO BEM-6 Shakers

Shaker Brand: M-I SWACO
Compatible with: BEM-6 Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	XR	244	4.08	5.37	WBM6XR084C
API 70	XR	224	3.54	5.37	WBM6XR105C
API 70	XR	203	3.37	5.37	WBM6XR120C
API 100	XR	144	1.92	5.37	WBM6XR145C
API 100	XR	142	2.5	5.37	WBM6XR165C
API 120	XR	122	2.07	5.37	WBM6XR180C
API 120	XR	118	2.07	5.37	WBM6XR200C
API 140	XR	116	1.55	5.37	WBM6XR230C
API 170	XR	96	0.89	5.37	WBM6XR270C
API 230	XR	62	0.52	5.37	WBM6XR325C
API 230	XR	59	0.45	5.37	WBM6XR400C
API 325	XR	43	0.32	5.37	WBM6XR500C
API 20	XL	800	12.85	5.37	WBM6XL024C
API 35	XL	536	11.64	5.37	WBM6XL038C
API 50	XL	311	6.09	5.37	WBM6XL050C
API 60	XL	273	4.14	5.37	WBM6XL070C
API 70	XL	231	3.69	5.37	WBM6XL084C
API 80	XL	174	2.21	5.37	WBM6XL105C
API 100	XL	142	1.71	5.37	WBM6XL120C
API 120	XL	127	1.45	5.37	WBM6XL150C
API 140	XL	116	1.97	5.37	WBM6XL165C
API 140	XL	102	1.74	5.37	WBM6XL200C
API 170	XL	88	1.07	5.37	WBM6XL220C
API 200	XL	73	1.18	5.37	WBM6XL230C
API 200	XL	70	0.93	5.37	WBM6XL270C
API 230	XL	62	0.51	5.37	WBM6XL325C
API 270	XL	54	0.36	5.37	WBM6XL360C
API 325	XL	48	0.42	5.37	WBM6XL400C

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	HC	269	4.39	5.37	WBM6HC084C
API 60	HC	235	4.44	5.37	WBM6HC105C
API 70	HC	202	3.78	5.37	WBM6HC120C
API 80	HC	169	3.3	5.37	WBM6HC165C
API 100	HC	139	2.65	5.37	WBM6HC200C
API 120	HC	120	1.36	5.37	WBM6HC230C
API 170	HC	86	1.03	5.37	WBM6HC270C
API 200	HC	73	0.85	5.37	WBM6HC325C
API 10	MG	2051	52.51	5.37	WBM6MG010C
API 18	MG	962	26.33	5.37	WBM6MG020C
API 30	MG	577	9.61	5.37	WBM6MG030C
API 40	MG	413	7.43	5.37	WBM6MG040C
API 60	MG	243	-	5.37	WBM6MG060C
SNAP-LOK Plugs					WBM6YYZZZ

Screen Specifications

- Dimensions (W x L, inches): 36" x 27.5"
- Weight: 17.6 lbs

Technical Data: **DURAFLO Composite OEM Screens**

M-I SWACO MD Series Shakers

Shaker Brand: M-I SWACO
Compatible with: MD-2 & MD-3 Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	XR	237	4.3	2.64	J/WMD3XR084C
API 60	XR	233	3.62	2.64	J/WMD3XR105C
API 70	XR	204	3.59	2.64	J/WMD3XR120C
API 100	XR	142	2.6	2.64	J/WMD3XR165C
API 120	XR	117	1.3	2.64	J/WMD3XR200C
API 140	XR	110	1.1	2.64	J/WMD3XR230C
API 140	XR	100	1.04	2.64	J/WMD3XR270C
API 230	XR	61	0.68	2.64	J/WMD3XR325C
API 270	XR	57	0.48	2.64	J/WMD3XR400C
API 325	XR	48	0.3	2.64	J/WMD3XR500C
API 20	XL	787	12.01	2.64	J/WMD3XL024C
API 35	XL	480	10.39	2.64	J/WMD3XL038C
API 50	XL	295	6.02	2.64	J/WMD3XL050C
API 60	XL	239	3.98	2.64	J/WMD3XL070C
API 70	XL	205	3.15	2.64	J/WMD3XL084C
API 80	XL	186	4.39	2.64	J/WMD3XL105C
API 100	XL	144	2.2	2.64	J/WMD3XL120C
API 120	XL	126	1.585	2.64	J/WMD3XL150C
API 140	XL	116	1.77	2.64	J/WMD3XL165C
API 140	XL	100	1.62	2.64	J/WMD3XL200C
API 170	XL	90	1.058	2.64	J/WMD3XL220C
API 200	XL	78	1.12	2.64	J/WMD3XL230C
API 200	XL	72	0.78	2.64	J/WMD3XL270C
API 230	XL	61	0.39	2.64	J/WMD3XL325C
API 270	XL	54	0.457	2.64	J/WMD3XL360C
API 325	XL	44	0.38	2.64	J/WMD3XL400C

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	HC	265	3.69	2.64	J/WMD3HC084C
API 60	HC	235	4.09	2.64	J/WMD3HC105C
API 70	HC	201	3.16	2.64	J/WMD3HC120C
API 80	HC	171	2.13	2.64	J/WMD3HC165C
API 100	HC	146	1.82	2.64	J/WMD3HC200C
API 120	HC	122	1.46	2.64	J/WMD3HC230C
API 170	HC	84	1	2.64	J/WMD3HC270C
API 200	HC	73	0.77	2.64	J/WMD3HC325C
API 10	MG	2013	-	2.64	J/WMD3MG010C
API 18	MG	955	26.1	2.64	J/WMD3MG020C
API 30	MG	574	14	2.64	J/WMD3MG030C
Available on Request	MG	-	-	2.64	J/WMD3MG040C
.8 mm	UR	-	-	-	J/WMD3UR008T
2.5 mm	UR	-	-	-	J/WMD3UR025T
SNAP-LOK Plugs					J/WMD3YYZZZ

Screen Specifications

- Dimensions (W x L, inches): 24.49" x 25.8"
- Weight: 15.4 lbs

Technical Data: **DURAFLO Composite OEM Screens**

M-I SWACO MONGOOSE & MEERKAT Series Shakers

Shaker Brand: M-I SWACO
Compatible with: MONGOOSE & MEERKAT Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	XR	275	4.12	5.3	JMONXR084C
API 70	XR	227	2.26	5.3	JMONXR105C
API 80	XR	174	2	5.3	JMONXR120C
API 100	XR	147	1.65	5.3	JMONXR165C
API 120	XR	119	1.4	5.3	JMONXR200C
API 140	XR	110	0.99	5.3	JMONXR230C
API 170	XR	86	0.84	5.3	JMONXR270C
API 200	XR	72	0.81	5.3	JMONXR325C
API 325	XR	44	0.39	5.3	JMONXR400C
API 14	XL	1329	21.82	5.3	JMONXL014C
API 25	XL	779	14.69	5.3	JMONXL024C
API 35	XL	530	9.97	5.3	JMONXL038C
API 50	XL	302	5.6	5.3	JMONXL050C
API 60	XL	264	4.11	5.3	JMONXL070C
API 70	XL	219	3.06	5.3	JMONXL084C
API 80	XL	168	2.54	5.3	JMONXL105C
API 100	XL	141	2.17	5.3	JMONXL120C
API 120	XL	126	1.64	5.3	JMONXL150C
API 140	XL	111	1.49	5.3	JMONXL165C
API 140	XL	103	1.48	5.3	JMONXL200C
API 170	XL	92	1.18	5.3	JMONXL220C
API 200	XL	80	1.13	5.3	JMONXL230C
API 200	XL	74	0.91	5.3	JMONXL270C
API 230	XL	58	0.55	5.3	JMONXL325C
API 270	XL	51	0.44	5.3	JMONXL360C
API 325	XL	43	0.35	5.3	JMONXL400C

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	HC	270	3.73	5.3	JMONHC084C
API 60	HC	238	3.8	5.3	JMONHC105C
API 70	HC	201	3.13	5.3	JMONHC120C
API 100	HC	146	2.69	5.3	JMONHC165C
API 100	HC	142	1.96	5.3	JMONHC200C
API 120	HC	120	1.61	5.3	JMONHC230C
API 200	HC	74	1.1	5.3	JMONHC270C
API 230	HC	62	0.79	5.3	JMONHC325C
API 8	MG	2474	63.93	5.3	JMONMG008C
API 10	MG	2051	49.33	5.3	JMONMG010C
API 14	MG	1442	34.07	5.3	JMONMG014C
API 16	MG	1142	25.44	5.3	JMONMG016C
API 18	MG	938	14.8	5.3	JMONMG020C
API 35	MG	545	10.13	5.3	JMONMG030C
API 45	MG	385	4.61	5.3	JMONMG040C
.8 mm	UR	-	-	-	JMONUR008T
2.5 mm	UR	-	-	-	JMONUR025T

Screen Specifications

- Dimensions (W x L, inches): 23” x 45.875”
- Weight: 24 lbs

Technical Data: **DURAFLO Composite OEM Screens**

M-I SWACO MONGOOSE & MEERKAT Series Shakers

(SNAP-LOK Pluggable)

Shaker Brand: M-I SWACO
Compatible with: MONGOOSE & MEERKAT Series

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	XR	275	4.12	5.3	WMONXR084J
API 70	XR	227	2.26	5.3	WMONXR105J
API 80	XR	174	2	5.3	WMONXR120J
API 100	XR	147	1.65	5.3	WMONXR165J
API 120	XR	119	1.4	5.3	WMONXR200J
API 140	XR	110	0.99	5.3	WMONXR230J
API 170	XR	86	0.84	5.3	WMONXR270J
API 200	XR	72	0.81	5.3	WMONXR325J
API 325	XR	44	0.39	5.3	WMONXR400J
Available on Request	XR	-	-	5.3	WMONXR500J
API 14	XL	1329	21.82	5.3	WMONXL014J
API 25	XL	779	14.69	5.3	WMONXL024J
API 35	XL	531	9.97	5.3	WMONXL038J
API 50	XL	302	5.6	5.3	WMONXL050J
API 60	XL	264	4.11	5.3	WMONXL070J
API 70	XL	219	3.06	5.3	WMONXL084J
API 80	XL	168	2.54	5.3	WMONXL105J
API 100	XL	141	2.17	5.3	WMONXL120J
API 120	XL	126	1,64	5.3	WMONXL150J
API 140	XL	111	1.49	5.3	WMONXL165J
API 140	XL	103	1.48	5.3	WMONXL200J
API 170	XL	92	1.18	5.3	WMONXL220J
API 200	XL	80	1.13	5.3	WMONXL230J
API 200	XL	74	0.91	5.3	WMONXL270J
API 230	XL	58	0.55	5.3	WMONXL325J
API 270	XL	51	0.44	5.3	WMONXL360J
API 325	XL	43	0.35	5.3	WMONXL400J

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 60	HC	270	3.73	5.3	WMONHC084J
API 60	HC	238	3.8	5.3	WMONHC105J
API 70	HC	201	3.13	5.3	WMONHC120J
API 100	HC	146	2.69	5.3	WMONHC165J
API 100	HC	142	1.96	5.3	WMONHC200J
API 120	HC	120	1.61	5.3	WMONHC230J
API 200	HC	74	1.1	5.3	WMONHC270J
API 230	HC	62	0.79	5.3	WMONHC325J
API 8	MG	2474	63.93	5.3	WMONMG008J
API 10	MG	2051	49.33	5.3	WMONMG010J
API 14	MG	1442	34.07	5.3	WMONMG014J
API 16	MG	1142	25.44	5.3	WMONMG016J
API 18	MG	938	14.8	5.3	WMONMG020J
API 35	MG	546	10.13	5.3	WMONMG030J
API 45	MG	385	4.61	5.3	WMONMG040J
SNAP-LOK Plugs					WMONYYZZZ

Screen Specifications

- Dimensions (W x L, inches): 23" x 45.875"
- Weight: 24 lbs

Technical Data: **OEM Screens**

M-I SWACO 2x6 Shakers

Shaker Brand: M-I SWACO
Compatible with: 2x6 Shakers

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 20	MG	892	18.27	11.2	J2X6MG020D
API 35	MG	549	8.48	11.2	J2X6MG030D
API 40	MG	410	6.69	11.2	J2X6MG040D
API 50	MG	308	4.65	11.2	J2X6MG050D
API 60	MG	238	3.78	11.2	J2X6MG060D
API 80	MG	192	2.55	11.2	J2X6MG080D
API 100	MG	147	2.21	11.2	J2X6MG100D
API 120	MG	121	1.95	11.2	J2X6MG120D
API 140	MG	102	1.88	11.2	J2X6MG150D
API 200	MG	81	1.32	11.2	J2X6MG180D
API 200	MG	80	1.32	11.2	J2X6MG200D
API 230	MG	62	1.13	11.2	J2X6MG250D
API 325	MG	49	0.82	11.2	J2X6MG325D

Screen Specifications

- Dimensions (W x L, inches): 24.25" x 72"

SWECO 4x3 Shakers

Shaker Brand: SWECO
Compatible with: 4x3 Shakers

API Designation	Mesh Type	d_{100} (cut point, µ)	Conductance (kD/mm)	Non-blanked Area (sq. ft)	Part Number
API 6	MG	3502	113.67	10.7	J4X3MG006H
API 8	MG	2553	88.67	10.7	J4X3MG008H
API 10	MG	1961	75.22	10.7	J4X3MG010H
API 10	MG	1960	62.91	10.7	J4X3MG012H
API 14	MG	1432	39.46	10.7	J4X3MG014H
API 16	MG	1121	31.73	10.7	J4X3MG016H
API 18	MG	1030	27.49	10.7	J4X3MG018H
API 20	MG	903	24.16	10.7	J4X3MG020H
API 35	MG	547	12.86	10.7	J4X3MG030H
API 40	MG	406	9.69	10.7	J4X3MG040H
API 50	MG	306	6.08	10.7	J4X3MG050H
API 60	MG	246	5.94	10.7	J4X3MG060H
API 80	MG	177	3.03	10.7	J4X3MG080H
API 100	MG	146	2.82	10.7	J4X3MG100H
API 120	MG	122	2.19	10.7	J4X3MG120H

Screen Specifications

- Dimensions (W x L, inches): 45.25” x 36”

M-I SWACO
A Schlumberger Company

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