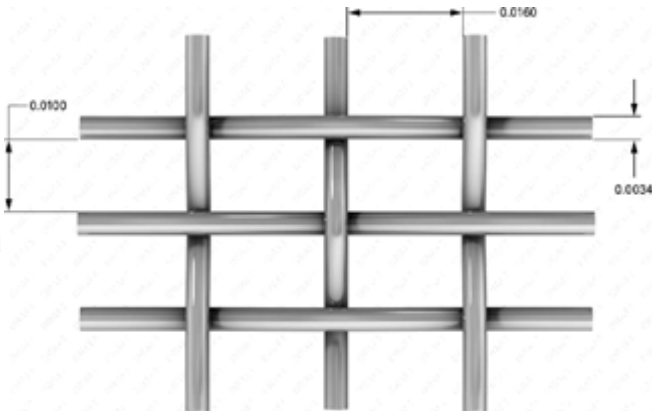
High Performance BaraMesh™ Shale Shaker Screens

SOLIDS CONTROL EQUIPMENT AND SERVICES

OVERVIEW

While there are a variety of solids control solutions, shaker screens are the most optimal solution and serve as the operator's first line of defense against reducing solids contamination and maintaining fluid integrity. Halliburton Baroid has engineered BaraMesh™ screen cloths to help achieve the goals identified within the drilling program. BaraMesh screens are available for most common shale shakers and can be custom built to support virtually any equipment design in any operating location.



BaraMesh™ unique rectangular design offers a 1.6:1 wire aspect ratio offers higher conductivity compared to the standard 1:1 square mesh ratio. The above example reflects BaraMesh top layer of an API 50.

Our screens are comprised of a strong, three-layer design that incorporates a larger wire diameter than conventional shaker screens. This design offers a wire aspect ratio (the ratio of length to width of each screen opening) that is more resistant to wear and helps increase the longevity of the screen life. BaraMesh screens are also able to support high flow rates, and resist blinding thus reducing waste to haul off volumes.

BaraMesh screen cloth is a rectangular mesh with an aspect ratio of approximately 1.6:1. Our unique design offers higher conductivity, which is a significant advantage over standard 1:1 square mesh ratio. This aspect ratio was chosen specifically to help ensure optimum flow capacity without sacrificing separation ability. Meshes with a higher aspect ratio tend to open under load and allow larger solids to pass through. Although actual screening performance on a shaker continues to be influenced by multiple factors such as speed and type of vibration, G-Force, fluid rheology, size, shape and consistency of the solids, the new API RP13C testing protocols offer a more consistent guide to the separation potential of the screen and testing parameters.

CHALLENGE

In today's drilling environment, operators seek methods to help reduce operational costs while not compromising performance. In effort to meet or exceed performance metrics, the operator's primary goal is to maximize the efficiency of solids removal and minimize the threat of solids contamination. The abrasiveness of solid-laden fluid can cause significant consequences such as non-productive time (NPT) related to equipment wear, decreased rate of penetration (ROP), and in severe cases downhole tool failure. Fluid system performance depends on selecting screens specific to drilling conditions and properly balance cutpoint and capacity.

FEATURES

- High aspect ratio increases conductance and conveyance
- Stainless steel rectangular mesh provides resistance to near size particle blinding
- Increased wire diameter ensures screen longevity

BENEFITS

- Maximise fluid recovery and minimise waste volumes
- Reduces the need for dumping and dilution of drilling fluid
- Reduces manual handling involved in mixing new mud or pre-mixes
- Reduces costs and potential downtime while not compromising performance
- Ability to withstand aggressive drilling parameters without increasing well AFEs
- Offers an increased longevity of the screen, operators are able to maintain desired cutpoints

Manufacturer	Models
Brandt NOV	CM2, Dual Tandem, King Cobra / LCM3D, King Cobra Venom, VSM100, VSM300, LCM2D, 285p / 380p
Derrick	FLC 2000 / DK48, FLC500, MDL58 (60x30)
M-I SWACO	ALS, BEM 600/650, Mongoose / Meerkat, MD3 / MD3
Fluid Systems	Series 500 Model B / 5000
KEM-TRON	(48 x 28) PT, (49 x 26) PT
Vortex	Vortex 3000
Ruff	RL327/RL436
Triflo	126 24.25 ocw x 36.5, 148-8 48 ocw x 31.5
Triton	(48x28) Hook

QUALITY MANUFACTURING

BaraMesh screens are manufactured to the exact OEM specifications, ensuring a consistent fit for every screen, every time.

All steel pretension panels are manufactured with the latest robotic welding technology available to date, which ehlps ensure accurate and proper fit for all pretension panels.

Our proprietary screens are manufactured with high quality stainless steel wire mesh, ensuring accurate weaves that deliver consistent performance across all API designations.

Baroid offers API mesh screens that are customized above and below the range of the BaraMesh products shown here to accommodate the needs of your drilling operation.

State of the art Robotic Screen Welder

CONCLUSION

Efficient solids removal can have a significant effect upon all aspects of drilling operations ranging from lower fluid maintenance costs to reduced NPT from stuck pipe. Poor screen life can result in additional expenditures for replacement screens, increased NPT and higher inventory and logistics costs.

BaraMesh screen cloth combines the high conductivity of conventional, high aspect ratio rectangular mesh, the solids removal capabilities of a square mesh and the ability to outlast other screens. BaraMesh screens are available for all common shale shakers and can be custom built to support any equipment design.

Our integrated approach accounts for fluid plan and targeted ROP metrics along with waste stream volumes. Our engineered screen solutions are customized in accordance to the drilling fluids program parameters to help maximize wellbore value.

API	D100 Separation (microns)	Conductance (Kd/mm)	API D100 Cut Point (microns)
45	327.5 to 390	5.66	380
50	275 to 327.5	4.45	326
60	231 to 275	3.34	252
70	196 to 231	3.03	215
80	165 to 196	2.5	170
100	137.5 to 165	2.26	163
120	116.5 to 137.5	1.59	130
140	98 to 116.5	1.35	103
170	82.5 to 98	1.27	85
200	69 to 82.5	0.84	73
230	58 to 69	0.74	67
270	49 to 58	0.67	55
325	41.5 to 49	0.5	45

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com