IDEC Shaker Screen - TPIC



IDEC Who?

International Drilling Fluids and Engineering services (IDEC) has been set up as a fully equipped Drilling Services company with the intention of undertaking **Exploration and Drilling** services contracts in African continent and middle east promoting localization and employment opportunities. **IDEC** combines the extensive experience and expertise of its associates and group companies and serves as a single entity for catering complete requirements for drilling of oil wells



Equipment Portfolio



Service Portfolio







Shale Shaker Screens

IDEC recognizes that the shale shaker screens play a vital role in how well a shale shaker performs as the result directly affects the performance and costs of all drilling operations.

Our shaker screens and manufactured to API RP13C and are ISO 9001 and 14001 compliant.

IDEC is committed to developing and supplying shaker screens that not only comply with the industry's highest quality and manufacturing standards; but also offers the same, and in many cases better, performance than the original OEM screen.





Specifications

Compatibility

The shaker screens can be fitted to all major shaker brands and upon request we are able to manufacture screens for specialized equipment

Screen size range

With the screen sizes ranging from API 20 – API 400 our screens can adapt to all screen requirements, be it:

- Scaling shakers
- Primary shakers
- Mud cleaners
- Drying shakers

Our Screens are:

Extra-fine squares

The extra fine squares allows for an increase in Conductivity, Conveyance and Transmittance

Repairable

To increase the life of the screens IDEC screens are repairable up to 15%. This will help minimize the customable costs while operating the shakers

Reliability

Using highly robust material and the latest in manufacturing technology makes our screens last longer and endure the toughest of environments optimizing the performance and minimizing the operational costs



Specifications

Pyramid Screen Range

The Pyramid screen consists of a standard sandwich construction having two fine-mesh cloths layered with a coarse backing cloth. These three layers are bonded together, corrugated, and then bonded to a perforated plate. The resulting corrugations are 0.8 inches high on then the traditional flat screen increasing total screening area and maximizing fluid dispersion. The Pyramid screen uses gravity to force the oncoming solids off the peaked areas and down into the trough sections of the panel. This solids distribution keeps the peaked areas clear of solids and allows for continuously higher fluid throughput than is possible with any standard flat panel screen.



Composite Screen Range

Extra-fine square mesh provides the best balance between defined cut point, conductivity, conveyance and anti-blinding ability. IDEC screens are repairable up to a recommended 15% surface area; extending service life and maintaining screen integrity. High material quality, manufacturing technology and attention to product excellence ensures IDEC screens are equipped to offer longevity and performance under in the most demanding drilling environments.





Composite Screen Technology



Stainless Steel Upper Mesh Stainless Steel Intermediate Mesh

Stainless Steel Support Mesh

High Tensile Steel Rod Structure within a Glass Reinforced Plastic Frame The screen frame is a moulded structural foam polymer supported with a high-tensile steel sub-structure The unique construction allows the frame to maximise the area available for fluid flow while maintaining its structural strength The frames are typically half the

weight of a mild-steel equivalent

associated with manual handling

which greatly reduces the risks



Pyramid Screen Technology



Increased Shaker Capacity

Pyramid screens increase the total amount of usable API nonblanked screen area by 108% and therefore the Fluid-handling capacity is increased up to 100%.

Fits Existing Shakers

Pyramid screens fit all Derrick shakers, thus allowing for the most efficient use of existing equipment. There is no need to modify or replace the existing shaker.

Screen Finer Faster

Utilizing Pyramid screens enable shakers to screen 1 to 2 API sizes finer than traditional perforated plate flat screen panels. This maximizes the solids removal efficiency of the shaker.



Applications

Normal Production							
ΟΕΜ	Description	Dimensions	Weight	Туре	Screen Type	Frame Type	
MISwaco	Mongoose	585x1165mm	12kg	Pretension	Flat	Composite	
MISwaco	Meerkat	585x1165mm	12kg	Pretension	Flat	Composite	
MISwaco	MD Series	610x660mm	7kg	Pretension	Flat	Composite	
MISwaco	ALS	1212x1141mm	7kg	Hook Strip	Flat	Steel	
Brandt	Cobra/Venom	635x1250mm	15kg	Pretension	Flat	Composite	
Brandt	LCM Series	635x1250mm	15kg	Pretension	Flat	Composite	
Brandt	VSM300 Scalping	940x685mm	12kg	Pretension	Flat	Composite	
Brandt	VSM300 Primary	890x685mm	12kg	Pretension	Flat	Composite	
Brandt	D380/D285	712x1180mm	14kg	Pretension	Flat	Composite	
Derrick	FLC2000	1053x697mm	5.5kg	Hook Strip	Pyramid	Steel	1
Derrick	FLC2000	1053x697mm	5.5kg	Hook Strip	Flat	Composite	
Derrick	FLC500	1050x695mm	7.5kg	Hook Strip	Pyramid	Steel	
Derrick	FLC500	1050x695mm	7.5kg	Hook Strip	Flat	Composite	
Derrick	Hyperpool	570x1070mm	11kg	Hook Strip	Pyramid	Steel	
Derrick	FLC600	570x1070mm	11kg	Hook Strip	Pyramid	Steel	
Fluid Systems	29 x 42	737x1067mm	14kg	Pretension	Flat	Composite	
Mesh Type			Layer Count				
SS304 / SS316 stainless steel			Triple Layer				

API Compliant

Testing and Labeling Procedure

The cut point test uses aluminum oxide, a Rotap, a set of ASTM sieves, a test screen

A digital scale for weighing the quantity of test particles retained by the test screen.

The D100 cut point is used for assigning screen designations.

D100 means that 100 percent of the particles larger than the test screen will be retained, and all finer particles will pass through.

After conducting three Rotap tests, the results are averaged, and the screen is given an API number of the test sieve having the closest D100 cut point.

D100 Separation	API Screen Number
780 to 925	API 20
655 to 780	API 25
550 to 655	API 30
462.5 to 550	API 35
390 to 462.5	API 40
327.5 to 390	API 45
275 to 327.5	API 50
231 to 275	API 60
196 to 231	API 70
165 to 195	API 80
137.5 to 165	API 100
116.5 to 137.5	API 120
98 to 116.5	API 140
82.5 to 98	API 170
69 to 82.5	API 200
58 to 69	API 230
49 to 58	API 270
41.5 to 49	API 325
35 to 41.5	API 400





Real Results - IRAQ

IDEC Shale Shaker Screens Excel in Field Trial against OEM and other Screen Suppliers, Lowering Costs, while Enhancing Operational Efficiency

Description	IDEC	Supplier 1	Supplier 2
Operational Cost "per foot"	3	1	2
Distance Drilled	3	1	2
Pre-Screen Check	3	3	2
Endurance (Screen Life)	3	1	2
Conveyance	3	3	3
Total	15	9	11

Summary Trial Results 2.5 15 0.5 0 Distance Operational Pre-Screen Endurance Conveyance Cost "per Drilled Check (Screen Life) foot" MSSI Supplier 1 Supplier 2

Results Pre-Screen Check

IDEC light weight composite screen and build quality match and even surpassed the other major screen suppliers. Making it easy to handle, sealing to the shaker with ease, no glue and light weight providing positive influences in performance.

Distance Drilled

IDEC drilled further than the other suppliers, 75% more than supplier one and 25% more than Supplier 2. This is one of the critical factors when considering cost per foot drilled.

Cement Jobs

IDEC API120 screens processed 7 cement jobs before showing signs of wear. Previously trial screens only accomplished 1-2 cement jobs

Screens Handling

IDEC API120 screens were placed on/off the shaker 10 times and was also part of 3 rig moves. Previous suppliers only lasted through 1-3 screens changes and 0-1 rig moves

Value to Client

The screen trial was conducted across a period of eight wells, which involved measuring the difference between the Pre-Checks, Endurance, Distance Drilled, Mobility/installation factors and conveyance. By recording this data, we then compared the overall performance of all the screen suppliers currently trialed for the Client

After reviewing all the data compiled from the screen trial it was determined that;

• IDEC Operational Cost "per foot" for the API120 is on average is \$0.15, which is at minimum 50% cheaper than the market value of the other screen's suppliers.

IDEC Passed prescreen checks satisfying the rig crew and service hands

IDEC Endurance surpassed that of the other suppliers

- ✓ Drilled further than the other suppliers
 - ✓ Withstanding 7x more cement jobs
- ✓ Multiple rig moves, with rig crew handling

It has therefore been concluded that for an enhancement in the operational efficiency of the Shakers, the IDEC replacement screens would be an effective contender. Even without taking advantage of the low Operational Cost "per foot" drilled



Why IDEC



✓ IRAQ is Our Headquarters, Reputation is everything

Increasing In Country Value to boost local economy

Consistent Screens at reliable costs

 One stop shop of both leading screen technologies, Composite and Pyramid

 Our screens maintain the stiffness required to provide good throughput and conveyance

✓ IDEC Screens offer the Best cost per foot drilled



How Can We Help



✓ Screens Reference Sheet for Distribution

Rig site training on screen selection and best practices

Written producers and best practices for distribution

 Consignment agreements. Use now, Pay later and reduce clients inventory costs for screens by 90%

 Recommendations on improvements on the current systems and training in all related equipment

✓ 24/7 Service support for ongoing operations



How to Order

- ✓ What type of Shaker?
- ✓ What API # is required?
- ✓ Quantity of Screens required?
- ✓ Consignment Options
- Email <u>nashat.mohamed@idecint.com</u> or <u>espe@idecint.com</u> with the requirements or request to meet



IDEC have a wide range of Shale Shaker Screens available across the region and can order additional screens upon request with our leading manufacturer





